PSG0906004CE

Service Manual

DVD Stereo System

Model No. SA-VK880PU

Product Color: (K)...Black Type



Please file and use this service manual together with the service manual for CR14D, Order No. PSG0905054AE

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

TABLE OF CONTENTS

PAGE

1 Safety Precautions ---- **4**
- 1.1. GENERAL GUIDELINES ---- 4
- 1.2. Before Use ---- 4
- 1.3. Before Repair and Adjustment ---- 4
- 1.4. Protection Circuitry ---- 5
- 1.5. Safety Parts Information ---- 5

2 Warning ---- **6**
- 2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatic Sensitive (ES) Devices ---- 6
- 2.2. Precaution of Laser Diode ---- 7
- 2.3. Service caution based on Legal restrictions ---- 8
- 2.4. Handling Precautions for Traverse Unit ---- 9

3 Service Navigation ---- **11**
- 3.1. Service Information ---- 11

4 Specifications ---- **12**

Panasonic®

5 Location of Controls and Components ---- **14**
5.1. Main Unit Key Button Operation ---- 14
5.2. Remote Control Key Button Operation ---- 15
5.3. Disc Information ---- 16
5.4. Using the Music Port ---- 18
5.5. DivX VIDEO-ON-DEMAND Content ---- 19
5.6. USB - Play and Recording ---- 20
6 Self-Diagnosis and Special Mode Setting ---- **22**
6.1. Service Mode Summary Table ---- 22
6.2. Doctor Mode Table ---- 24
6.3. Self-Diagnosis Mode Table ---- 25
6.4. Service Mode Table (For DVD) ---- 26
6.5. DVD Self Diagnostic Function-Error Code ---- 34
6.6. Sales Demonstration Lock Function ---- 39
7 Troubleshooting Guide ---- **40**
7.1. Troubleshooting Guide for F61 and/or F76 ---- 40
7.2. Basic Troubleshooting Guide for Traverse Unit (DVD Module P.C.B.) ---- 46
8 Service Fixture & Tools ---- **47**
8.1. Service Tools and Equipment ---- 47
9 Disassembly and Assembly Instructions ---- **48**
9.1. Disassembly flow chart ---- 50
9.2. Main Components and P.C.B. Location ---- 51
9.3. Disassembly of Top Cabinet ---- 52
9.4. Disassembly of DVD Mechanism Unit (CR14D) ---- 53
9.5. Disassembly of DVD Module P.C.B. ---- 55
9.6. Disassembly of Rear Panel ---- 55
9.7. Disassembly of Front Panel Assembly ---- 56
9.8. Disassembly of Mic P.C.B. ---- 57
9.9. Disassembly of Panel P.C.B., Volume P.C.B. & Remote Sensor P.C.B. , Side Bar (L) LED P.C.B. and Side Bar (R) LED P.C.B. ---- 58
9.10. Disassembly of USB P.C.B. ---- 60
9.11. Disassembly of Music Port P.C.B. ---- 61
9.12. Disassembly of CD Lid ---- 61
9.13. Disassembly of Deck Mechanism Unit ---- 62
9.14. Disassembly of Deck P.C.B. ---- 63
9.15. Disassembly of Deck Mechanism P.C.B. ---- 63
9.16. Disassembly of Deck Mechanism ---- 64
9.17. Disassembly of Cassette Lid ---- 73
9.18. Rectification for Tape Jam Problem ---- 73
9.19. Disassembly of D-Amp P.C.B. ---- 74
9.20. Replacement of Audio Digital Power Amp IC (IC5000) ---- 75
9.21. Replacement of Audio Digital Power Amp IC (IC5200) ---- 76
9.22. Replacement of Audio Digital Power Amp IC (IC5300) ---- 76
9.23. Replacement of Audio Digital Power Amp IC (IC5400) ---- 77
9.24. Disassembly of Main P.C.B. ---- 78
9.25. Disassembly of SMPS P.C.B. ---- 79
9.26. Replacement of Switching Regulator IC (IC5701) ---- 80
9.27. Replacement of Rectifier Diode (D5702) ---- 81
9.28. Replacement of Regulator Diode (D5801) ---- 82
9.29. Replacement of Regulator Diode (D5802) ---- 83
9.30. Replacement of Regulator Diode (D5803) ---- 84
9.31. Disassembly of AC Inlet P.C.B. ---- 85
9.32. Disassembly of Voltage Selector P.C.B. ---- 86
10 Disassembling and Assembling of Traverse Unit ---- **88**
10.1. Disassembly Procedures ---- 88
10.2. Assembly Procedures ---- 89
11 Service Positions ---- **90**
11.1. Checking and Repairing of Main P.C.B. ---- 90
11.2. Checking and Repairing Panel P.C.B., Deck P.C.B., Volume P.C.B., Music Port P.C.B. and Mic P.C.B. ---- 90
11.3. Checking and Repairing of D-Amp P.C.B. ---- 92
11.4. Checking and Repairing of AC Inlet P.C.B. & SMPS P.C.B. ---- 94
12 Measurements and Adjustments ---- **96**
12.1. Cassette Deck ---- 96
12.2. Tape Speed Adjustment ---- 96
12.3. Bias Voltage Check ---- 97
12.4. Bias Frequency Check ---- 97
13 Voltage & Waveform Chart ---- **98**
13.1. DVD Module P.C.B. (1/3) ---- 98
13.2. DVD Module P.C.B. (2/3) ---- 99
13.3. DVD Module P.C.B. (3/3) ---- 100
13.4. Main P.C.B. (1/3) ---- 101
13.5. Main P.C.B. (2/3) ---- 102
13.6. Main P.C.B. (3/3) ---- 103
13.7. Panel P.C.B. ---- 104
13.8. Deck P.C.B. ---- 104
13.9. Mic P.C.B. ---- 104
13.10. D-Amp P.C.B. (1/2) ---- 105
13.11. D-Amp P.C.B. (2/2) ---- 106
13.12. SMPS P.C.B. ---- 106
13.13. Deck Mechanism P.C.B. ---- 106
13.14. Volume P.C.B. ---- 107
13.15. Waveform Table (1/4) ---- 108
13.16. Waveform Table (2/4) ---- 109
13.17. Waveform Table (3/4) ---- 110
13.18. Waveform Table (4/4) ---- 111
14 Illustration of ICs, Transistor and Diode ---- **112**
15 Block Diagram ---- **113**
15.1. DVD (Audio) ---- 113
15.2. DVD (Servo) ---- 114
15.3. System Control ---- 115
15.4. Audio ---- 116
15.5. Video ---- 117
15.6. Deck ---- 118
15.7. D-Amp ---- 119
15.8. Power ---- 120
16 Wiring Connection Diagram ---- **121**
17 Schematic Diagram Notes ---- **123**
18 Schematic Diagram ---- **125**
18.1. DVD Module Circuit ---- 125
18.2. Main Circuit ---- 129
18.3. Panel, Side Bar (L) Led & Side Bar (R) Led Circuit ---- 135
18.4. Volume, Music Port, Remote Sensor & Mic Circuit ---- 136
18.5. Deck Circuit ---- 137
18.6. D-Amp Circuit ---- 138
18.7. SMPS Circuit ---- 140
18.8. USB, Deck Mechanism, AC Inlet & Voltage Selector Circuit ---- 142
19 Printed Circuit Board ---- **143**
19.1. DVD Module P.C.B. ---- 143

19.2. Main P.C.B. ---------- 144
19.3. Panel, Side Bar (L) Led & Side Bar (R) Led P.C.B. ---------- 145
19.4. Volume, Music Port, Remote Sensor, Mic & USB P.C.B. ---------- 146
19.5. Deck, Deck Mechanism, AC Inlet & Voltage Selector P.C.B. ---------- 147
19.6. D-Amp P.C.B. ---------- 148
19.7. SMPS P.C.B. ---------- 149
20 Terminal Function of ICs ---------- 151
20.1. IC2801 (RFKWMVK880GC): IC MICROPROCESSOR ---------- 151
20.2. IC6601(C0HBB0000057): IC FL Driver ---------- 151
21 Exploded View and Replacement Parts List ---------- 153
21.1. Exploded View and Mechanical Replacement Part List ---------- 153
21.2. Electrical Replacement Part List ---------- 159

1 Safety Precautions

1.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, carry out the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞

1.1.2. LEAKAGE CURRENT HOT CHECK

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

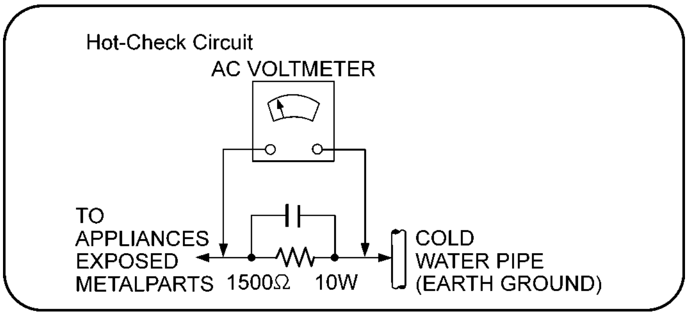


Figure 1

1.2. Before Use

Be sure to disconnect the mains cord before adjusting the voltage selector.
Use a minus(-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used. (If the power supply in your area is 117V or 120V, set to the “117V or 120V” position.)
Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries, the correct voltage is already set.)

1.3. Before Repair and Adjustment

Disconnect AC power to discharge unit AC Capacitors as such (C5700, C5701, C5703, C5704, C5705, C5706, C5707) through a 10 Ω, 10 W resistor to ground.

Caution:

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at AC 110V~127V, 50/60 Hz at power on (in FM Tuner, no signal at volume minimum) should be ~ 750 mA.
Current consumption at AC 220V~240V, 50/60 Hz at power on (in FM Tuner, no signal at volume minimum) should be ~ 500 mA.

1.3.1. Caution for fuse replacement

CAUTION:

i) Replace with the same type fuse:
(Manufacturer: LITTELFUSE, INC, Type: 215, F1, T8AH, 250V)

1.4. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

1.5. Safety Parts Information

Safety Parts List:

There are special components used in this equipment which are important for safety.

These parts are marked by ⚠ in the Schematic Diagrams & Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

Safety	Ref. No.	Part No.	Part Name & Description	Remarks
⚠	4	REZX0023-1	BLK WIRE (AC INLET-SMPS)	
⚠	5	REZX0024-1	RED WIRE (AC INLET-SMPS)	
⚠	15	RGRX0070P-E1	REAR PANEL	
⚠	53	REXX0686-1	WHITE WIRE (VOLT SELECTOR SMPS)	
⚠	54	REXX0687-1	RED WIRE (VOLT SELECTOR SMPS)	
⚠	69	RKMX0144A-K	TOP CABINET	
⚠	340	RD-DDTX004-V	TRAVERSE ASS'Y	(RTL)
⚠	A2	K2CQ2CA00007	AC CORD	
⚠	A3	RQTX0289-M	O/I BOOK (En/Sp)	
⚠	PCB12	REPX0751G	SMPS P.C.B	(RTL)
⚠	PCB13	REPX0751G	AC Inlet P.C.B	(RTL)
⚠	DZ5701	ERZV10V511CS	ZNR	
⚠	S5701	K0ABCA000007	SW AC VOLTAGE SELECTOR	
⚠	L5703	ELF22V035B	LINE FILTER	
⚠	T2900	G4D1A0000117	SWITCHING TRANSFORMER	
⚠	T5701	ETS42BN1A6AD	MAIN TRANSFORMER	
⚠	T5751	ETS19AB256AG	BACKUP TRANSFORMER	
⚠	PC5701	B3PBA0000402	PHOTO COUPLER	
⚠	PC5702	B3PBA0000402	PHOTO COUPLER	
⚠	PC5720	B3PBA0000402	PHOTO COUPLER	
⚠	PC5799	B3PBA0000402	PHOTO COUPLER	
⚠	F1	K5D802BNA005	FUSE	
⚠	FP2901	K5G401A00008	FUSE PROTECTOR	
⚠	TH5702	D4CAA2R20001	THERMISTOR	
⚠	TH5860	D4CC11040013	THERMISTOR	
⚠	P5701	K2AA2B000017	AC INLET	
⚠	C5700	F1BAF1020020	1000pF	
⚠	C5701	F0CAF334A087	0.33uF	
⚠	C5703	F0C2H1040001	0.1uF 500V	
⚠	C5704	F1BAF1020020	1000pF	
⚠	C5705	F1BAF1020020	1000pF	
⚠	C5706	F1BAF1020020	1000pF	
⚠	C5707	F1BAF1020020	1000pF	

2 Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatic Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   Caution:
   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

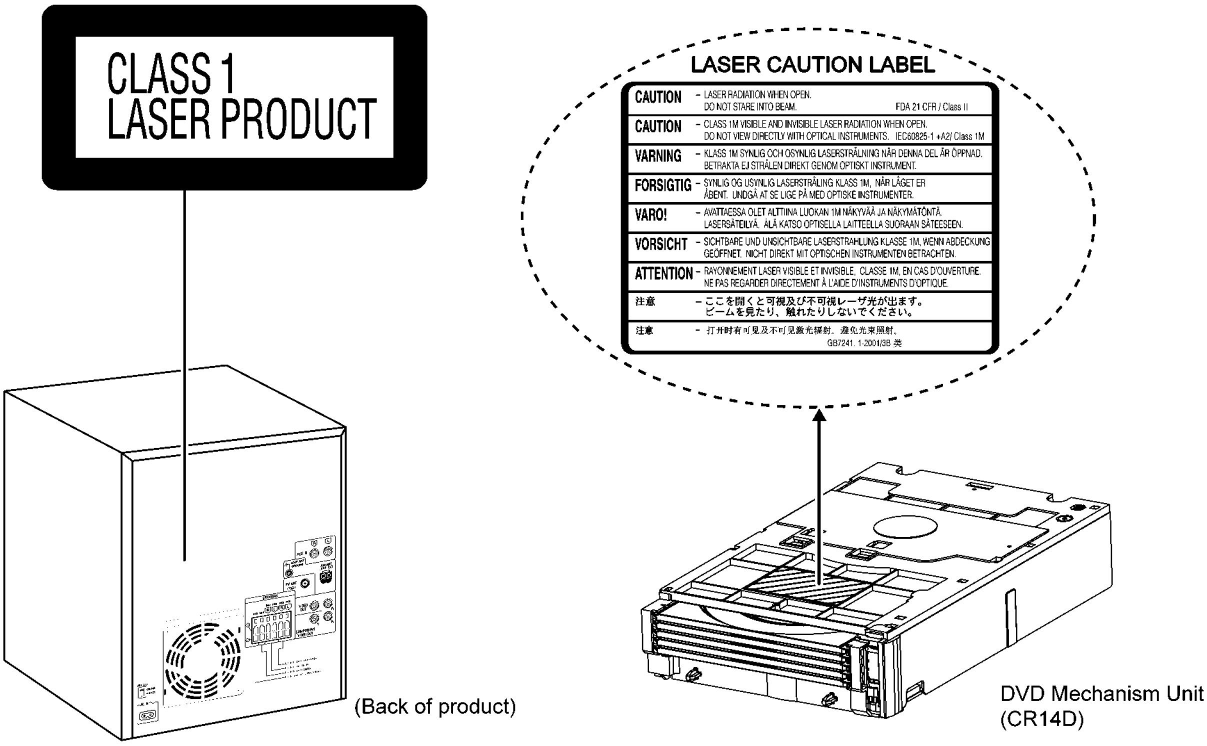
2.2. Precaution of Laser Diode

> **CAUTION:**
> THIS PRODUCT UTILIZES A LASER.
> USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Caution:

This product utilizes a laser diode with the unit turned “on”, invisible laser radiation is emitted from the pickup lens.
Wavelength: 655nm (DVD) / 785 nm (CD)
Maximum output radiation power from pickup: 100 μW/VDE
Laser radiation from the pickup unit is safety level, but be sure the followings:

1. Do not disassemble the pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.



2.3. Service caution based on Legal restrictions

2.3.1. General description about Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.

The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30 degrees C (86°F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of "PbF" is printed either foil side or components side on the PCB using the lead free solder. (See right figure)	PbF

Service caution for repair work using Lead Free Solder (PbF)

- The lead free solder has to be used when repairing the equipment for which the lead free solder is used.
  (Definition: The letter of "PbF" is printed on the PCB using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30 degrees C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.
  RFKZ03D01K-----------(0.3mm 100g Reel)
  RFKZ06D01K-----------(0.6mm 100g Reel)
  RFKZ10D01K-----------(1.0mm 100g Reel)

Note

* Ingredient: tin (Sn), 96.5%, silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%

2.4. Handling Precautions for Traverse Unit

The laser diode in the optical pickup unit may break down due to static electricity of clothes or human body. Special care must be taken avoid caution to electrostatic breakdown when servicing and handling the laser diode in the traverse unit.

2.4.1. Cautions to Be Taken in Handling the Optical Pickup Unit

The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Special care must be taken avoid caution to electrostatic discharge damage when servicing the laser diode.

1. Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.
2. To prevent the laser diode from the electrostatic discharge damage, the flexible cable of the optical pickup unit removed should be short-circuited with a short pin or a clip.
3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the flexible cable.
4. The antistatic FPC is connected to the new optical pickup unit. After replacing the optical pickup unit and connecting the flexible cable, cut off the antistatic FPC.

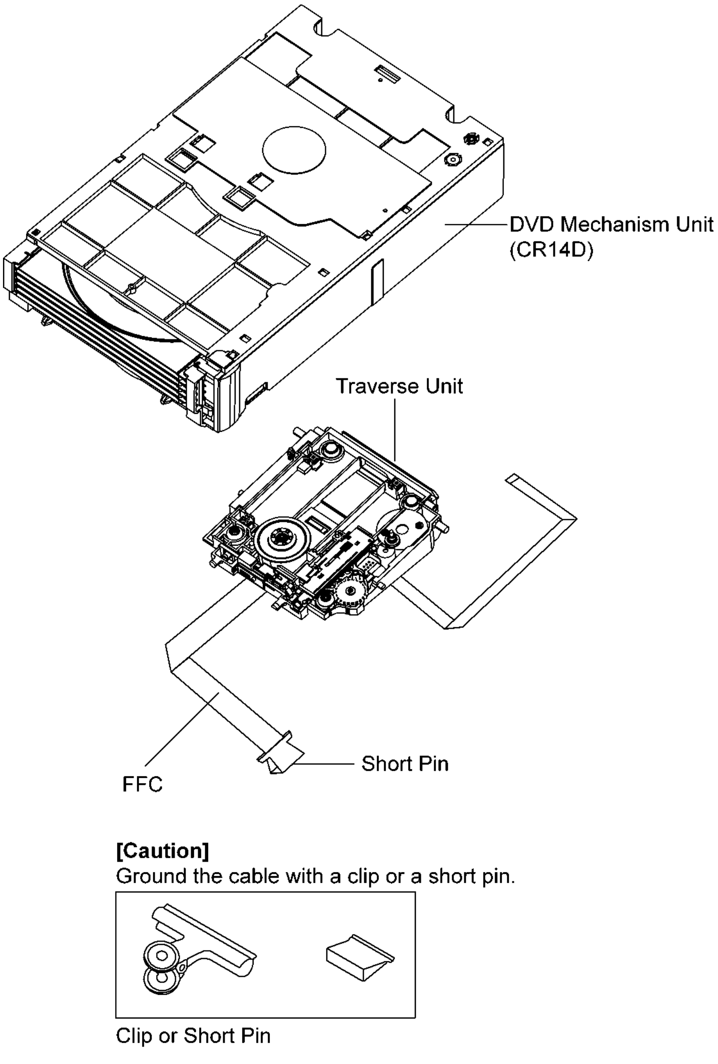


Figure 1

2.4.2. Grounding for electrostatic breakdown prevention

Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

2.4.2.1. Worktable grounding

1. Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed, and ground the sheet.

2.4.2.2. Human body grounding

1. Use the anti-static wrist strap to discharge the static electricity form your body.

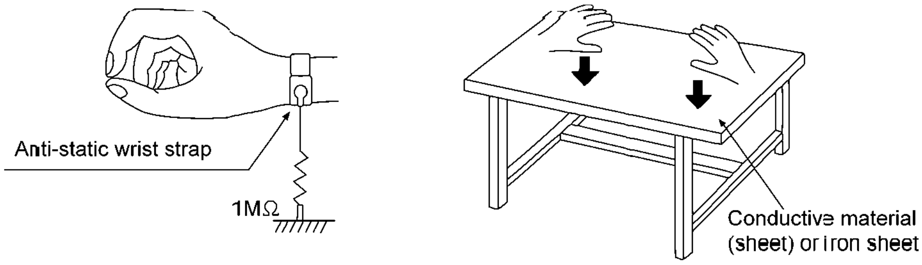


Figure 2

3 Service Navigation

3.1. Service Information

This service manual contains technical information which will allow service personnel’s to understand and service this model. Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

• DVD Mechanism unit (CR14D):

1) This model uses DVD Mechanism Unit (CR14D).

• Micro-processor & EEPROM IC:

1) The following components are supplied as an assembled part.
- Micro-processor IC, IC2801 (RFKWMVK880GC)
- EEPROM IC, IC2802 (RFKWEVK880GC)
- EEPROM IC, IC8611 (RFKBX0681F-C)

• Speaker system:

1) For information, please refer to original service manual, SB-PF880GC-K, SB-PC880GC-K1, SB-PS880GC-K (Order No. PSG0906008CE)

• Subwoofer system:

1) For information, please refer to original service manual, SB-WAK780PN-K (Order No. PSG0905028CE).

4 Specifications

■ AMPLIFIER SECTION

RMS Output Power Stereo mode:

Front Ch	125 W per channel (3 Ω), 1 kHz, 10% THD
Surround Ch	125 W per channel (3 Ω), 1 kHz, 10% THD
Center Ch	250 W per channel (6 Ω), 1 kHz, 10% THD
Subwoofer Ch	250 W per channel (3 Ω), 100 Hz, 10% THD
Total RMS Dolby Digital mode power	1000 W

■ FM/AM TUNER, TERMINALS SECTION

Preset station	FM 30 stations AM 15 stations
Frequency Modulation (FM)	
Frequency range	87.50 to 108.00 MHz (50 kHz step)
Antenna terminals	75 Ω (unbalanced)
Amplitude Modulation (AM)	
Frequency range	522 to 1629 kHz (9 kHz step) 520 to 1630 kHz (10 kHz step)
Music Port (Front) jack	
Terminal	Stereo, 3.5 mm jack
Sensitivity	200mV, 4.7kΩ
Phone jack	
Terminal	Stereo, 3.5 mm jack
Mic jack	
Terminal	Mono, 6.3 mm jack (2 system)
Sensitivity	0.7mV, 1.2kΩ
AUX	
Terminal	RCA jack

■ CASSETTE DECK SECTION

Type	Auto reverse
Track system	4-Track, 2 Channel
Heads	
Record/playback	Solid permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s
Overall frequency response (+3, -6 dB) at DECK OUT	
Normal	35 Hz to 14 kHz
S/N ratio	50 dB (A-Weighted)
Wow and flutter	0.18 % (WRMS)
Fast forward and rewind time	Approx. 120 seconds with C-60 cassette tape

■ VIDEO SECTION

Video system	NTSC
Composite video output	
Output level	1 Vp-p (75 Ω)
Terminal	Pin jack (1 system)
Component video output	
Y output level	1 Vp-p (75 Ω)
P_B output level	0.7 Vp-p (75 Ω)
P_R output level	0.7 Vp-p (75 Ω)
Terminal output level	Pin jack (Y: green, P_B: blue, P_R: red) (1 system)

■USB SECTION

USB Port	
USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3) WMA (*.wma) JPEG (*.jpg) (*.jpeg) DivX (*.divx, *.avi) MPEG4 (*.asf)
USB device file system	FAT12, FAT16, FAT 32
USB Port power	Max. 500 mA
Bit rate up to	4 Mbps (DivX)
USB Recording	
Bit Rate	128 kbps
USB recording speed	1x
Recording file format	MP3 (*.mp3)

■ DISC SECTION

Disc played [8 cm or 12 cm]

(1) DVD (DVD-Video, DivX[*6,*7])

(2) DVD-RAM (DVD-VR, JPEG[*4,*7], MP3[*2,*7], MPEG4[*5,*7], DivX[*6,*7])

(3) DVD-R (DVD-Video, DVD-VR, JPEG[*4,*7], MP3[*2,*7], MPEG4[*5,*7], DivX[*6,*7])

(4) DVD-R DL (DVD-Video, DVD-VR)

(5) DVD-RW (DVD-Video, DVD-VR, JPEG[*4,*7], MP3[*2,*7], MPEG4[*5,*7], DivX[*6,*7])

(6) +R/ +RW (Video)

(7) +R DL (Video)

(8) CD,CD-R/RW (CD-DA, Video CD, SVCD[*1], MP3[*2,*7], WMA[*3,*7], JPEG[*4,*7], MPEG4[*5,*7], DivX[*6,*7])

[*1] Conforming to IEC62107

[*2] MPEG-1 Layer 3, MPEG-2 Layer 3

[*3] Windows Media Audio Ver 9.0 L3
Not compatible with Multiple Bit Rate (MBR)

[*4] Exif Ver 2.1 JPEG Baseline files
Picture resolution: between 160 x 120 and 6144 x 4096 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4). Extremely long and narrow pictures may not be displayed.

[*5] MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders. Conforming to SD VIDEO specifications (ASF standard)/ MPEG4 (Simple Profile) video system/ G.726 audio system.

[*6] Plays DivX® video.

[*7] The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 255 groups (excluding root folder).

Pick up	
Wavelength	
CD	785 nm
DVD	655 nm
Laser Power	CLASS 1
Audio output (Disc)	
Number of channels	5.1 channel (FL, FR, C, SL, SR, SW)

■ GENERAL

Power supply	AC 110 V to 127 V/220 V to 240 V, 50/60 Hz
Power consumption	132 W
Power consumption in standby mode:	0.4 W (approx.)
Dimensions (W x H x D)	250 mm x 331 mm x 334 mm
Mass	4.9 kg
Operating temperature range	+0 to +40°C
Operating humidity range	35 to 80% RH (no condensation)

■ SYSTEM

System	SC-VK880PU-K
Main unit	SA-VK880PU-K
Front speaker	SB-PF880GC-K*1
Surround speaker	SB-PS880GC-K*1
Center speaker	SB-PC880GC-K1*1
Subwoofer system	SB-WAK780PN-K*1

Refer to their respective original service manuals for *1.

Notes:

1. Specifications are subject to changes without notice. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

5 Location of Controls and Components

5.1. Main Unit Key Button Operation



1 **AC supply indicator (AC IN)**
This indicator lights when the unit is connected to the AC mains supply.

2 **Standby/on switch (⏻/I)**
Press to switch the unit from on to standby mode or vice versa.
In standby mode, the unit is still consuming a small amount of power.

3 [● REC, USB]

4 Using surround effect

5 Adjusting subwoofer level

6 [● REC, TAPE]

7 USB port

8 Deck [⏏, OPEN]

9 MUSIC PORT jack

10 **Headphone jack 🎧**
Reduce the volume level and connect the headphones. Headphones plug type: 3.5 mm stereo (not included).
Avoid listening for prolonged periods of time to prevent hearing damage.
Excessive sound pressure from earphones and headphones can cause hearing loss.

Remote control signal sensor

11 Disc trays

12 [⏏, OPEN/CLOSE]

13 [⏏, EXCHANGE]
[1 ▶] to [5 ▶]
(disc direct play)

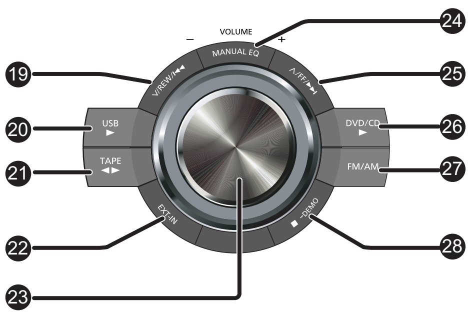
14 Enhancing bass sound

15 Selecting Manual EQ, adjusting its BASS level

16 [MIN, MIC VOL, MAX]

17 Microphone (MIC 1, MIC 2) jacks

18 Cassette holder



19 25 Skip, rewind, fast forward, Tape Program Sensor, sound quality adjustment, time adjustment

20 USB selector and playback

21 Tape playback and direction

22 MUSIC PORT/AUX selection

23 [- VOLUME +]

24 [MANUAL EQ]

26 DVD/CD selector and playback

27 FM/AM selection

28 Stop, DEMO function

5.2. Remote Control Key Button Operation

1 Turn the unit on/off

2 Show disc information/Select a disc

Play loaded discs in order

3 Select channels and title numbers etc./Enter numbers

4 Random play, Program play
Tape: Reverse mode selection
Radio: Band mode selection

5 Source select
[►, USB] selector and playback
[◄►, TAPE] Tape playback and direction
EXT-IN, FM/AM:
FM/AM selection
MUSIC PORT/AUX selection

6 Basic operations for play

7 Select surround sound effects

8 Show START menu

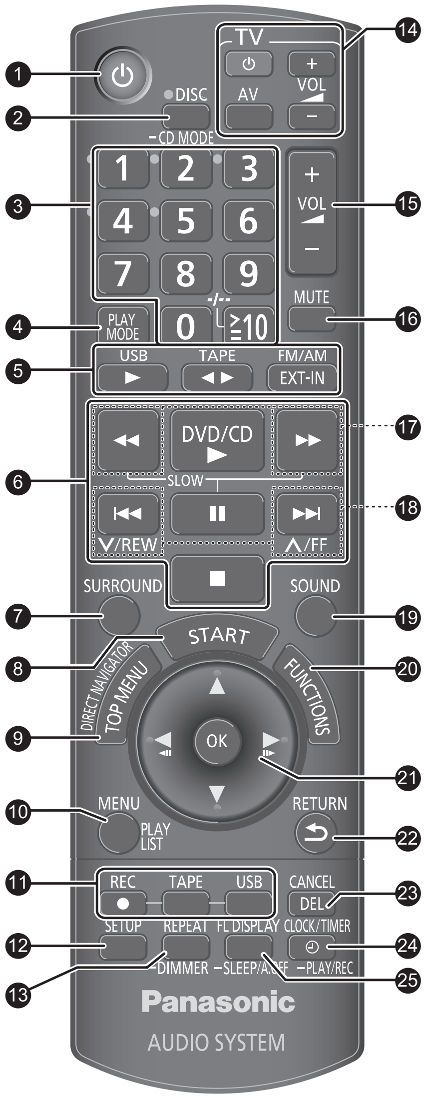
9 Show a disc top menu or program list

10 Show a disc menu or playlist

11 Tape and USB recording functions

12 Change the player settings

13 Repeat play
Dim the display panel



TV operations 14
(Aim the remote control to a Panasonic TV and press the button. Only works with some models)
[⏻]: turn the TV on/off
[AV]: change the TV's video input mode
[+, - , VOL]: adjust the TV volume

Adjust the volume of the main unit 15

Mute the sound 16

Slow motion, search, tuning 17

Skip, rewind, fast forward, Tape Program Sensor, sound quality adjustment, preset channel selection, time adjustment 18

Select sound mode 19

Show on-screen menu 20

Frame-by-frame/Select or register menu items 21

Return to previous screen 22

Cancel an item
Deleting an item 23

Clock and timer setting
PLAY/REC timer on/off 24

Changes the unit's display
Sleep timer, Auto off operation setting 25

5.3. Disc Information

5.3.1. Disc Playability (Media)

- **Commercial discs**

Disc	Logo	Indicated in these instructions by	Remarks
DVD-Video		DVD-V	High quality movie and music discs.
Video CD		VCD	Music discs with video. Including SVCD (Conforming to IEC62107).
CD		CD	Music discs.

- **Recorded discs (O: Playable, –: Not playable)**

Disc	Logo	Recorded on a DVD video recorder, etc.		Recorded on a personal computer, etc.					Finalizing [*8]
		DVD-VR [*2]	DVD-V [*4]	WMA	MP3	JPEG	MPEG4 [*6]	DivX [*7]	
DVD-RAM		O	–	–	O	O	O	O	**Not necessary**
DVD-R/RW		O	O	–	O	O	O	O	**Necessary**
DVD-R DL		O [*3]	O	–	–	–	–	–	**Necessary**
+ R/+ RW	–	–	(O) [*5]	–	–	–	–	–	**Necessary**
+ R DL	–	–	(O) [*5]	–	–	–	–	–	**Necessary**
CD-R/RW [*1]	–	–	–	O	O	O	O	O	**Necessary** [*9]

- It may not be possible to play all the above-mentioned discs in some cases due to the type of disc, the condition of the recording, the recording method, or how the files were created (→ 5.3.2 Tips for Making Data Disc)

[*1] This unit can play CD-R/RW recorded with CD-DA or Video CD format.
[*2] Discs recorded on DVD video recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).
[*3] Discs recorded on DVD video recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).
[*4] Discs recorded on DVD video recorders or DVD video cameras using DVD-Video Format.
[*5] Recorded using a format different from DVD-Video Format, therefore, some functions cannot be used.
[*6] MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system].
[*7] Functions added with DivX Ultra are not supported.
[*8] A process that allows play on compatible equipment. To play a disc that is displayed as "Necessary" on this unit, the disc must first be finalized on the device it was recorded on.
[*9] Closing the session will also work.

Note about using a DualDisc
The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so playback may not be possible.

● **Video systems**
- This unit can play PAL and NTSC, but your television must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC television.
- This unit can convert NTSC signals to PAL 60 for viewing on a PAL television.

● **Discs that cannot be played**
Blu-ray, HD DVD, AVCHD discs, DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Photo CD, DVD-RAM that cannot be removed from their cartridges, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

5.3.2. Tips for Making Data Disc

- When there are more than eight groups, the eighth group onwards will be displayed on one vertical line in the menu screen.
- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

DVD-RAM
- Discs must conform to UDF 2.0.

DVD-R/RW
- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This unit does not support multi-session. Only the default session is played.

CD-R/RW
- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit supports multi-session but if there are many sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.

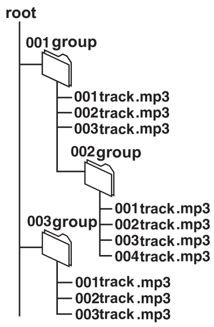
Naming folders and files

Files are treated as contents and folders are treated as groups on this unit.

At the time of recording, prefix folder and file names. This should be with numbers that have an equal number of digits, and should be done in the order you want to play them (this may not work at times).

Files must have the extension (→ below).

Example: MP3



WMA (Extension: “.WMA” or “.wma”)
- Compatible compression rate: between 48 kbps and 320 kbps.
- You cannot play WMA files that are copy-protected.
- This unit does not support Multiple Bit Rate (MBR).

MP3 (Extension: “.MP3” or “.mp3”)
- This unit does not support ID3 tags.
- Sampling frequency and compression rate:
  – DVD-RAM, DVD-R/RW: 11.02, 12, 22.05, 24 kHz (8 to 160 kbps), 44.1 and 48 kHz (32 to 320 kbps)
  – CD-R/RW: 8, 11.02, 12, 16, 22.05, 24 kHz (8 to 160 kbps), 32, 44.1 and 48 kHz (32 to 320 kbps)

JPEG (Extension: “.JPG”, “.jpg”, “.JPEG” or “.jpeg”)
- JPEG files taken on a digital camera that conform to DCF Standard (Design rule for Camera File system) Version 1.0 are displayed. Files that have been altered, edited or saved with computer picture editing software may not be displayed.
- This unit cannot display moving pictures, MOTION JPEG and other such formats, and still pictures other than JPEG (Example: TIFF), or play pictures with attached audio.

MPEG4 (Extension: “.ASF” or “.asf”)
- You can play MPEG4 data [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system] recorded with Panasonic SD multi cameras or DVD video recorders with this unit.
- The recording date may differ from that of the actual date.

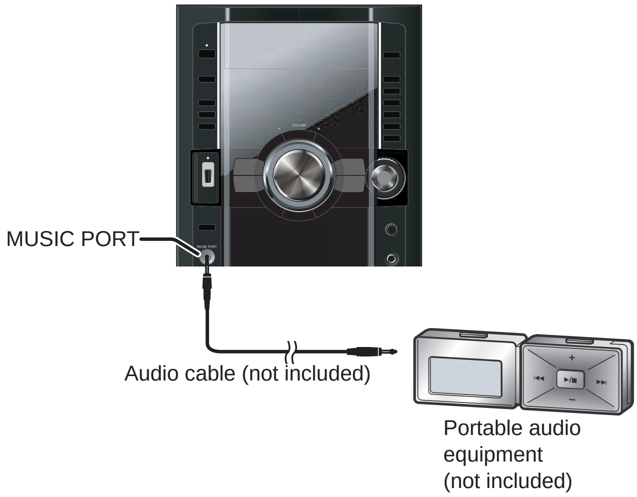
DivX (Extension: “.DIVX”, “.divx”, “.AVI” or “.avi”)
- You can play all versions of DivX® video (including DivX®6) [DivX video system/MP3, Dolby Digital or MPEG audio system] with standard playback of DivX® media files. Functions added with DivX Ultra are not supported.
- DivX files greater than 2 GB or have no index may not be played properly on this unit.
- This unit supports all resolutions up to maximum of 720 x 480 (NTSC)/720 x 576 (PAL).
- You can select up to eight types of audio and subtitles on this unit.

5.4. Using the Music Port

You can playback sound from portable audio equipment. Sound from the speaker may be distorted if the portable audio equipment s equalizer (if any) is turned on. Turn it off before you plug into the MUSIC PORT jack.

Preparation

Reduce the volume of the unit and portable audio equipment before connecting or disconnecting.



1 **Connect the portable audio equipment.**
Plug type: Ø3.5 mm stereo

2 **Press [EXT-IN] to select "MUSIC PORT".**
Every time you press the button:

FM → AM → MUSIC PORT → AUX ↩

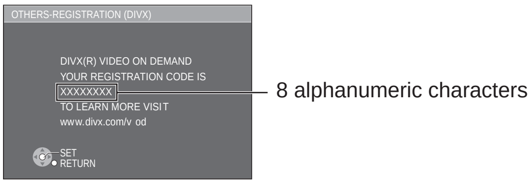
3 **For listening :** Proceed to step 4.
For recording : Press [● REC, TAPE] on the main unit to start recording.
Press [● REC, USB] on the main unit to start recording.

4 **Playback the portable audio equipment.**
(For details, refer to the external unit's instruction manual.)

5.5. DivX VIDEO-ON-DEMAND Content

This DivX® Certified device must be registered in order to play DivX Video-on-Demand (VOD) content.
First generate the DivX VOD registration code for your device and submit it during the registration process. [Important: DivX VOD content is protected by a DivX DRM (Digital Rights Management) system that restricts playback to registered DivX Certified devices. If you try to play DivX VOD content not authorized for your device, the message “Authorization Error” will be displayed and your content will not play.] Learn more at www.divx.com/vod.

Display the unit’s registration code



- We recommend that you make a note of this code for future reference.
- After playing DivX VOD content for the first time, another registration code is then displayed in “REGISTRATION (DIVX)”. Do not use this registration code to purchase DivX VOD content. If you use this code to purchase DivX VOD content, and then play the content on this unit, you will no longer be able to play any content that you purchased using the previous code.
- If you purchase DivX VOD content using a registration code different from this unit s code, you will not be able to play this content. (“AUTHORIZATION ERROR” is displayed.)

Regarding DivX content that can only be played a set number of times

Some DivX VOD content can only be played a set number of times. When you play this content, the remaining number of plays is displayed. You cannot play this content when the number of remaining plays is zero. (“RENTED MOVIE EXPIRED” or “RENTAL EXPIRED” is displayed.)

When playing this content

- The number of remaining plays is reduced by one if
  - – you press [⏻] or press [SETUP].
  - – you press [■]. [Press [❚❚] (pause) to pause play.]
  - – you press [⏮, ⏭] (skip) or [◀◀, ▶▶] (search) etc. and arrive at another content or the start of the content being played.
- The “RESUME” function.

5.6. USB - Play and Recording



Play

The USB connectivity enables you to connect and play tracks or files from USB mass storage class devices.
Typically, USB memory devices. (Bulk only transfer)

Preparation
Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.

It is not recommended to use a USB extension cable.
The USB device is not recognised by this unit.

1 Connect the USB mass storage device (not included).

USB enabled device
(not included)



2 Press [▶, USB] to begin playback.
3 Press [MENU] to display the USB menu.
4 Press [▲,▼] and then [OK] to select the desired item.
For other operating functions, they are similar as those described in “DISC OPERATIONS”.

- **Compatible Devices**

Devices which are defined as USB mass storage class:
– USB devices that support bulk only transfer.
– USB devices that support USB 2.0 full speed.

- **Supported Formats**

	File name	File extension	
Still pictures	JPG *1	.jpg	.jpeg
Music	MP3 WMA	.mp3	.wma
Video	MPEG4 *2	.asf	

*1 It may not be possible to play all the files due to the condition on how they were created.
*2 For Panasonic D-Snap/DIGA

Note

Maximum number of folders	255
Maximum number of files	4000
Maximum length of folder name	28
Maximum length of file name	28

- CBI (Control/Bulk/Interrupt) is not supported.
- Digital Cameras that use PTP protocol or which require additional program installation when connected to a PC are not supported.
- A device using NTFS file system is not supported.
  [Only FAT 12/16/32 (File Allocation Table 12/16/32) file system is supported].
- Depending on the sector size, some files may not work.
- It will not operate with Janus enabled MTP (Media Transfer Protocol) devices.
- Only one memory card will be selected when connecting a multi-port USB card reader. Typically the first memory card inserted.

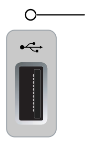


Recording

You can record sound or music tracks from the disc, radio, tape and other music sources to a USB mass storage device.

Note
- This function does not work during any “RANDOM” and “REPEAT” mode selection.
- A new folder is created each time you perform a recording. Depending on the USB’s memory, the folder’s sequence may change once the recording has completed.
- All tracks are recorded to .mp3 format.
- Do not remove the device or plug out the AC mains lead while recording, data could be lost.
- Voice mixing with CD from microphone cannot be recorded.
- Recording indicator blinks while recording in progress.

Recording indicator
Front panel of
this main unit



Recording of MP3 tracks

1 Connect the USB mass storage device.
2 Insert the disc(s) you want to record.
3 Press [DVD/CD ▶] and then [■] twice.
- If the disc contains mixed media.
- Recording specific disc(s) or tracks

4 Press and hold [●, REC] followed by [USB] (main unit: [● REC, USB]) to start recording.
- “READING” (blinking) ➔ “DISCXXX” ➔ “REC” (blinking) will be displayed.
- “PGM” is displayed if recording in Program mode.
- Folder and file created will be named “DISCXXX”, “TRKXXXXX” respectively.

5 Press [■] to stop recording.
“WRITING” is displayed for a few seconds.

Note
- MP3 file needs to be selected before recording can begin. All files in the current folder will be recorded.
- Non-MP3 files will be skipped.
- Files in subfolder will be ignored.
- No sound is output during recording. “MUTE” will be displayed if volume is adjusted.

Recording from audio disc (CDDA)

1. **Connect the USB mass storage device**
2. **Insert the disc(s) you want to record.**
3. **Press [DVD/CD ▶] and then [■] twice.**
   Recording specific disc(s) or tracks
4. **Press and hold [●, REC] followed by [USB] (main unit: [● REC, USB]) to start recording.**
   - “READING” (blinking) - “DISCXXX” - “elapsed time” will be displayed.
   - “PGM” is displayed if recording in Program mode.
   - Folder and file created will be named “DISCXXX”, “TRKXXXXX” respectively.
5. **Press [■] to stop recording.**
   “WRITING” is displayed for a few seconds.

Note
- Recording is prohibited for disc encoded with copyright protection, “COPYRIGHT PROTECTED” will be displayed.
- When CD MODE is selected;
  – Select an audio disc, otherwise recording will not start.
  – Program mode is not applicable.
  – Non audio discs will be ignored.

Recording from other sources

Tape	**1 Connect the USB mass storage device** **2 Insert tape into the deck.** **3 Search the desired position and then [■]** Use TPS function for faster search (- Cassette tapes — Play and Recording, page 24) **4 Press and hold [●, REC] followed by [USB] (main unit: [● REC, USB]) to start recording.** “⇄” automatically changes to “⇄” when you start recording. **5 Press [■] to stop recording.** “WRITING” is displayed for a few seconds.
Radio	Tune to the required station.
Music Port	- Using the Music Port
AUX	- Using an external unit

Note
This unit will analyse the USB device before recording. “READING” will blink on FL display. The time taken to start recording may vary depending on the device used.

Track Divide

This function allows you to divide between tracks. You can choose;
- AUTO 5M, track is automatically divided every 5 minutes.
- MANUAL, press [OK] during recording to activate track divide. If the track is not divided manually, every 60 minutes, track will be divided automatically.

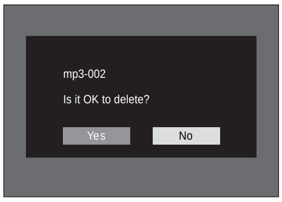
1. **Select “FM”, “AM”, “MUSIC PORT”, “AUX” or “TAPE” selector and press [SETUP]. “TRDIVIDE” will be displayed at FL display.**
2. **Press [▲, ▼] to choose between “AUTO 5M” or “MANUAL”.** “AUTO 5M” is default setting.
3. **Press [OK] to activate at any time of recording.**
   - Recording track by track from tape.
   - Skip unnecessary noise by making new track.

Note
If you press [OK] while using AUTO 5M mode during recording, the 5 minutes counts will be reset.

Erasing the recorded items

This function allows you to erase unwanted tracks quickly and easily.

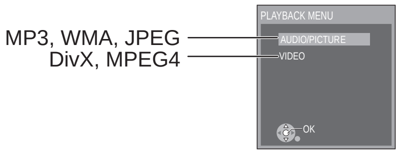
1. **Press [▶, USB] and then [■] twice.**
2. **Press [▲, ▼] to select.**
3. **Press [DEL] and a confirmation page will appear.**



4. **Press [◀, ▶] to choose “Yes” or “No” then press [OK]. File will be deleted if you choose “Yes” and “DELETING” will blink on the FL display.**

Erasing items in order (Playback Menu)

While “PLAYBACK MENU” is displayed



1. **Press [▲, ▼] to select “AUDIO/PICTURE” or “VIDEO” and press [OK].** When either one is selected, other file will become invisible and cannot be deleted.
2. **Press [DEL] to delete.**
3. **Repeat step 2 until all files are deleted.**
4. **Re-insert the device to continue.**
   “RE-INSERT USB DEVICE” will be displayed.

Note
- “USB WRITE PROTECTED” is displayed if the device is locked.
- Folders containing subfolders or unsupported files cannot be deleted.

6 Self-Diagnosis and Special Mode Setting

This unit is equipped with features od self-diagnosis & special mode setting for checking the function & reliability.
Special Note: Checking of the reliability (ageing) & changer operation must be carry out to ensure good working condition in unit.

6.1. Service Mode Summary Table

6.1.1. Doctor Mode Summary Table

Main unit buttons	Remote control unit buttons	Application	Note
[■-DEMO]	[4], [7]	Enter into doctor mode.	(Refer to the section “6.2. Doctor Mode Table” for more information.)
(In Doctor Mode)	[●DISC]	Changer check	

6.1.2. Self-Diagnosis Mode Summary Table

Main buttons	Remote control unit buttons	Application	Note
[STOP] + [∧/FF/▶▶I]	-	Entering into self-diagnostic mode.	(Refer to the section “6.3.1. Self-Diagnosis Mode Table 1” for more information.)
(In self-diagnostic mode) + [1▶]	-	Servicing the mechanism unit.	
(In self-diagnostic mode) + [2▶]	-	Servicing the traverse unit.	
In Self-diagnosis mode	[2]	Reliability 2 (Cycle)	(Refer to the section “6.3.2. Self-Diagnosis Mode Table 2” for more information.)
	[3]	Reliability 3 (Combi)	

6.1.3. Service Mode Summary Table (For DVD)

The service modes can be activated by pressing various button combination on the main unit and remote control unit.
Below is the summary for the various modes for checking:

Main buttons	Remote control unit buttons	Application	Note
[STOP]	[0]	Error code display.	(Refer to the section “6.4.1. Service Mode Table 1” for more information.)
	[5]	Jitter checking.	
	[PAUSE]	Initial setting of laser drive current.	
	[FUNCTIONS]	DVD laser drive current check.	(Refer to the section “6.4.2. Service Mode Table 2” for more information.)
	[3]	CD laser drive current check.	
	[6]	Region display and mode.	(Refer to the section “6.4.3. Service Mode Table 3“ for more information.)
	[7]	Micro-processor firmware version check.	
	≧10	Initialization of the player (factory setting is restored). Used after replacement of Micro-processor (DV5 LSI) IC, FLASH ROM IC (IC8651), EEPROM IC (IC8611) and DVD Module P.C.B.	
	[8]	DVD Module P.C.B. firmware version check.	(Refer to the section “6.4.4. Service Mode Table 4“ for more information.)
	[DISC]	CPPM/CPRM keys check.	
	[ENTER]	DVD Module P.C.B. reset.	
	▲	Timer 1 check.	(Refer to the section “6.4.5. Service Mode Table 5“ for more information.)
	▼	Timer 1 reset.	
	▶	Timer 2 check.	
	◀	Timer 2 reset.	

Note:

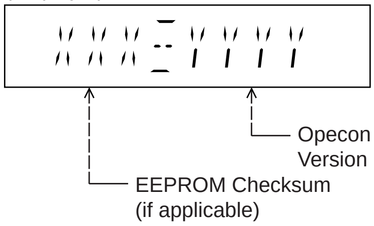
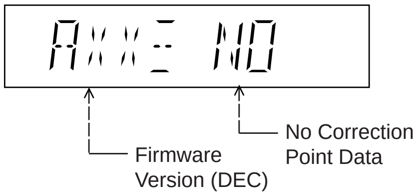
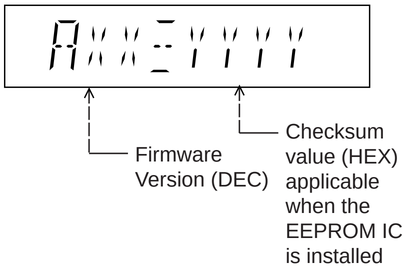
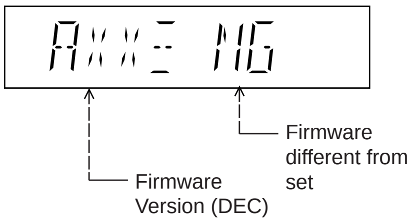
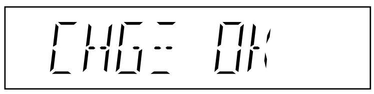
An error code will be canceled if a power supply is turned OFF.

*1: CPPM is the copy guard function beforehand written in the disk for protection of copyrights.

*2: CEC is the consumer electronic control used for high-level user control of HDMI-connected devices.

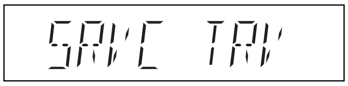
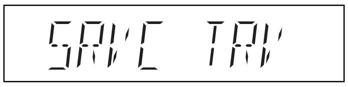
*3: HDCP is the specification developed to control digital audio & video contents transmission for DVI or HDMI connections.

6.2. Doctor Mode Table

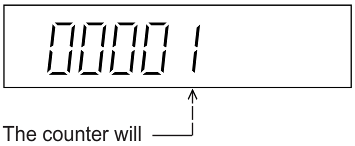
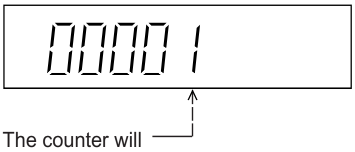
Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	To enter into Doctor Mode for checking of variuos items and displaying EEPROM and firmware version. Note: The micro-processor version as shown is an example. It will be revise when there is an update. FL Display sequence: Display 1→2.	(Display 1)  1. The check Sum of EPPROM and firmware version will be display. * ROM correction. * Firmware Version No: checksum: (Condition 1):  If there is no EEPROM Correction. checksum: (Condition 2):  If the EEPROM version matches, checksum [YYYY] is displayed. checksum: (Condition 3):  If the version of the EEPROM does not match or not working properly [NG] is displayed	In CD Mode: 1. Press [■-DEMO] button on main unit follow by [4] and [7] on remote control. To exist, press [ok] button on remote control or press [⏻/I, POWER] button on main unit or remote control.
CR14D Inspection	To check the function operation of mechanism unit		In Doctor mode: 1. Press [● DISC] button on remote control. To exist, press any key

6.3. Self-Diagnosis Mode Table

6.3.1. Self-Diagnosis Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Self-Diagnostic Mode	To enter into self-diagnostic checking for CR14D mechanism.		In DVD/CD mode (ensure no disc is inserted): Press and hold [STOP] button for five seconds, followed by [⋀/FF/►►I] button on the main unit. To exit, press [⏻/I AC IN] button on main unit or remote control unit.
Service Mode 1	To unlock the mechanism unit for service. In this mode, the disassembly of CR14D can be carry out. (Refer to original service manual for CR14D) 1. All trays are set to "STOCK" position. 2. Mechanism set to tray 1. 3. Cam gear set to "HOME" position.		In self-diagnostic mode, press [1] button on main unit. To exit, power off the main unit Press [EXCHANGE] on main unit for error code.
Service Mode 2	To unlock the traverse unit for service. In this mode, traverse unit can be disassembled. (Refer to original service manual for CR14D) 1. Tray 5 set to "Play" position. 2. Mechanism set to tray 5. 3. Cam gear set to "HOME" position.		In self-diagnostic mode, press [2] button on main unit. To exit, power off the main unit Press [EXCHANGE] on main unit for error code.

6.3.2. Self-Diagnosis Mode Table 2

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Reliability 2 (Traverse Cycle Test)	To determine playability operation.	Display 1  Display 2  The counter will increment by one. When reach 99999 will change to 00000	In self-diagnostic mode, press [2] button on remote control. To exit, press [⏻/I] button on the main unit or remote control unit.
Reliability 3 (Combi Cycle Test)	The combine test for both load & traverse cycle test.	Display 1  Display 2  The counter will increment by one. When reach 99999 will change to 00000	In self-diagnostic mode, press [3] button on remote control. To exit, press [⏻/I] button on the main unit or remote control unit.

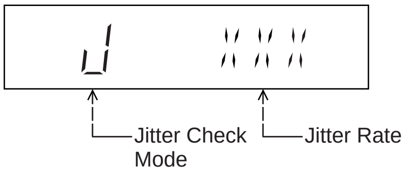
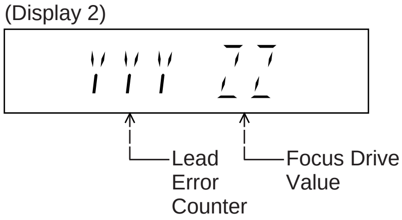
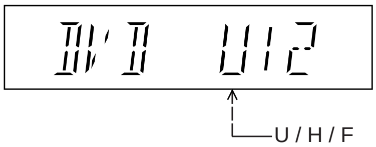
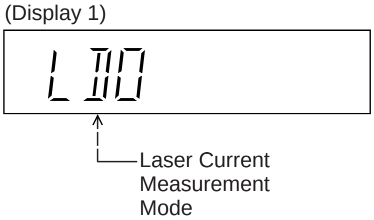
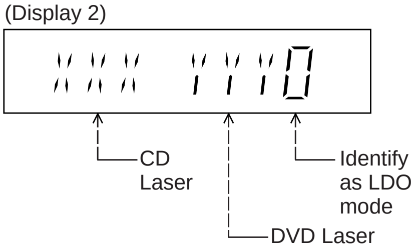
6.4. Service Mode Table (For DVD)

By pressing various button combinations on the main unit and remote control unit, you can activate the various service modes for checking.

Special Note:

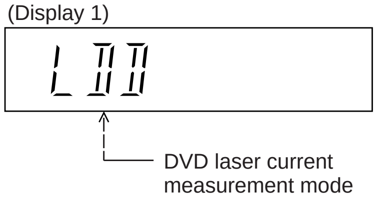
- Due to the limitations of the no. characters that can be shown on the FL Display, the “FL Display” button on the remote control unit can be used to show the two display pages. (Display 1 / Display 2).
- Refer to Section 5.2 for the section on “Remote Control Key Buttons Operations”.

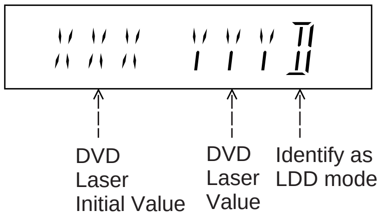
6.4.1. Service Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Jitter check	Jitter check. Jitter rate is measured and displayed. Measurement is repeatedly done in the cycle of one second. Read error counter starts from zero upon mode setting. When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retried to enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more. FL Display sequence: Display 1→2.	(Display 1)  Jitter rate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation. (Display 2) 	In STOP (no disc) mode, press [STOP] button on the main unit, and [5] button on the remote control unit. Press [STOP] button to exit. Press [FL Display] on remote control unit for next page (FL Display).
Error code display	Error code check The latest error code stored in the EEPROM IC is displayed. Note: Refer to "Section 8.4 DVD Self Diagnostic Function-Error Code" for more detailed information on the error codes.	 Error code (play_err) is expressed in the following convention. Error code = 0 x DAXX is expressed: → DVDnn U12 Error code = 0 x DBXX is expressed: → DVDnn H12 Error code = 0 x DXXX is expressed: → DVDnn F123 Error code = 0 x 0000 is expressed: → DVDnn F--- * "xx" denotes the error code	In STOP (no disc) mode, press [STOP] button on the main unit, and [0] button on the remote control unit. * With pointing of cursor up and down on display. Cancelled automatically 5 seconds later. To exit, press [POWER] button on main unit or remote control.
Initial setting of laser drive current	Initial setting of laser drive current. Initial current value for the DVD laser and CD laser is separately saved in the EEPROM IC. FL Display sequence: Display 1→2.	(Display 1)  The value denotes the current in decimal notation. (Display 2)  The above example shows the initial current is XXXmA and YYYmA for CD laser and DVD laser respectively when the laser is switched on.	In STOP (no disc) mode, press [STOP] button on the main unit, and [PAUSE] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] on remote control unit for next page (FL Display) on values of laser drive current.

6.4.2. Service Mode Table 2

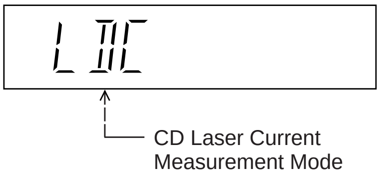
<table>
<tr><th colspan="2">Item</th><th rowspan="2">FL Display</th><th>Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th><th>Front Key</th></tr>
<tr>
<td>DVD laser drive current measurement</td>
<td>DVD laser drive current measurement.
DVD laser drive current is measured and the result is displayed together with the initial value stored in the EEPROM IC.
After the measurement, DVD laser emission is kept on. It is turned off when POWER key is switched off.

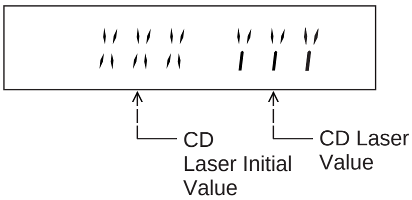
FL Display sequence:
Display 1→2.</td>
<td>(Display 1)


The value denotes the current in decimal notation.
(Display 2)


The above example shows the initial current is XXXmA and the measured value is YYYmA.</td>
<td>In STOP (no disc) mode, press [STOP] button on the main unit, and [FUNCTIONS] button on the remote control unit.
Cancelled automatically 5 seconds later.

Press [FL Display] on remote control unit for next page (FL Display) on values of dvd drive current.</td>
</tr>
<tr>
<td>CD laser drive current measurement</td>
<td>CD laser drive current measurement.
CD laser drive current is measured and the result is displayed together with the initial value stored in the EEPROM IC.
After the measurement, CD laser emission is kept on. It is turned off when POWER key is switched off.

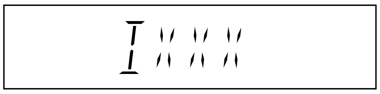
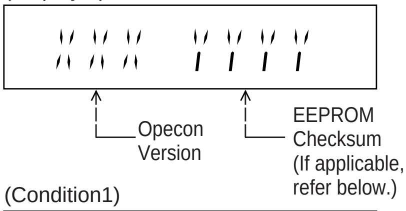
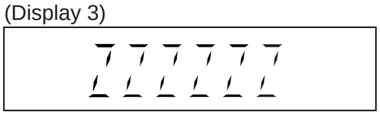
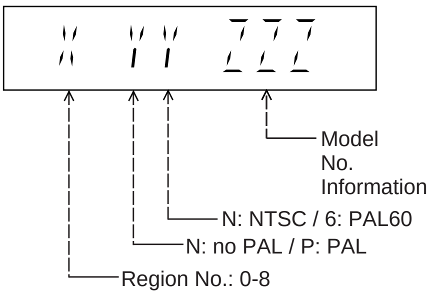
FL Display sequence:
Display 1→2.</td>
<td>(Display 1)


The value denotes the current in decimal notation.
(Display 2)


The above example shows the initial current is XXXmA and the measured value is YYYmA.</td>
<td>In STOP (no disc) mode, press [STOP] button on the main unit, and [3] button on the remote control unit.
Cancelled automatically 5 seconds later.

Press [FL Display] on remote control unit for next page. (FL Display)</td>
</tr>
</table>

6.4.3. Service Mode Table 3

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Micro-processor firmware version display & EEPROM checksum display.	Micro-processor firmware version display & EEPROM checksum display. EEPROM checksum is only available due to existence of EEPROM IC. Note: Condition 1/2/3 shows the state of EEPROM IC. It is indicated in Display 2. FL Display sequence: Display 1➞2➞3.	(Display 1)  (Display 2)  (Condition1)  If the version of the EEPROM does not match, [NG] is displayed. (Condition 2)  (a) If there is NO EEPROM header string OR (b) If there is no EEPROM (no data is received by Micro-processor), [NO] is displayed. (Condition 3)  If the EEPROM version matches, checksum [YYYY] is displayed. (Display 3) 	In STOP (no disc) mode, press [STOP] button on the main unit, and [7] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] button on remote control unit for next page. (FL Display)
Initialization mode	Initialization. User settings are cancelled and player is initialized to factory setting. It is necessary when after replacement of Micro-processor (DV5 LSI) IC, FLASH ROM IC (IC8651), EEPROM IC (IC8611) & DVD Module P.C.B.		In STOP (no disc) mode, press [STOP] button on the main unit, and [≧10] button on the remote control unit. Cancelled automatically 5 seconds later.
Region display	Region code display, TV broadcasting system & the model no. information. Note: Refer to Fig. 8.1 for "Video Design Information".		In STOP (no disc) mode, press [STOP] button on the main unit, and [6] button on the remote control unit. Cancelled automatically 5 seconds later.

Model Series	Country Region	Region Code	TV Broadcasting System	Product			
				Signal System (Default)	Region Display (Default)	OSD Default	OSD Menu Language
P, PC, PX	USA, Canada, PX	1	NTSC	NTSC (*A)	1PN	English	English, Spanish, Canadian, French
(S)	Japan	2	NTSC	NTSC (*A)	2PN	Japanese	Japanese, English
EP	Europe	2	PAL	PAL (*C)	2P6	English	English, French, German, Spanish, Polish, Russian, Czech, Hungarian
EB, EG	Europe	2	PAL	PAL (*C)	2P6	English	English, French, German, Italian, Spanish, Polish, Swedish, Dutch
GC, GS	Middle East	2	PAL	PAL (*C)	2P6	English	English, French, German, Spanish, Polish, Russian, Czech, Hungarian
GA, GD, GT, GJ	Hong Kong, South East Asia, Thailand, Korea, Taiwan	3	PAL NTSC	NTSC (*B)	3PN	English	English, Traditional Chinese
GN	New Zealand, Australia	4	PAL	PAL (*C)	4P6	English	English, French, German, Italian, Spanish, Polish, Swedish, Dutch
PN, PH, PU, PR	Central/South/ Latin America	4	NTSC	NTSC (*D)	4PN	English	English, Spanish, French, Brazilian Portuguese
EE	CIS	5	SECAM	PAL (*C)	5P6	English	English, French, German, Spanish, Polish, Russian, Czech, Hungarian
GK	China	6	PAL	NTSC (*B)	6PN	English	English, Simplified Chinese

NTSC (*A)

Source	Output
Screen Saver	NTSC
NTSC disc	NTSC
PAL disc	PAL (DVD-V)
	NTSC (DVD-A/VCD)

NTSC (*B)

Source	Output
Screen Saver	NTSC
NTSC disc	NTSC (default)
	PAL60
PAL disc	PAL

PAL (*C)

Source	Output
Screen Saver	PAL
NTSC disc	PAL60 (default)
	NTSC
PAL disc	PAL

NTSC (*D)

Source	Output
Screen Saver	NTSC
NTSC disc	NTSC
PAL disc	NTSC

Explanation of Display

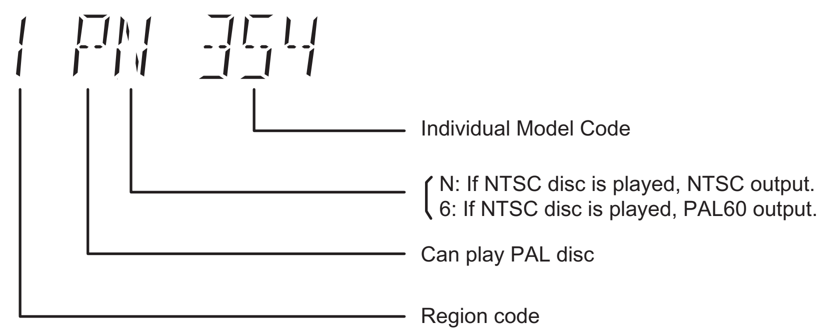
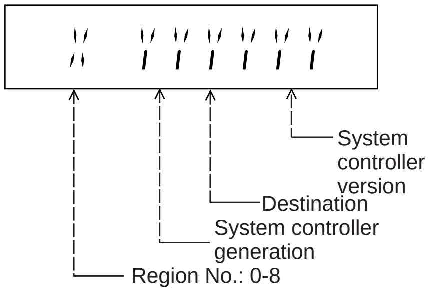
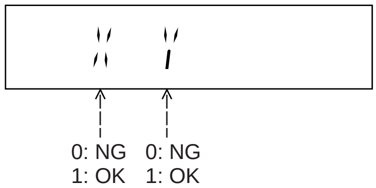
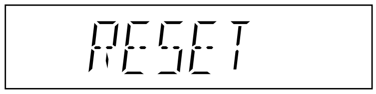
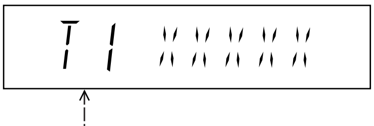
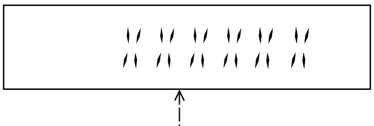
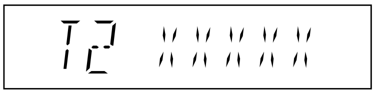


Figure 1 Video Design Information

6.4.4. Service Mode Table 4

	Item	FL Display	Key Operation
Mode Name	Description		Front Key
DVD Module P.C.B. firmware version display	DVD Module P.C.B. firmware version is displayed on the FL Display. The firmware version can be updated using recovery disc. Note: It is necessary to check for firmware version before carrying out the version up using the disc.		In STOP (no disc) mode, press [STOP] button on the main unit, and [8] button on the remote control unit. Cancelled automatically 5 seconds later.
CPPM/CRM Keys Check	CPPM/CRM refers to the Content Protection for Recordable Media and Pre-Recorded Media. It displays the existence of the keys as "1" or "0". OK: Existing of keys. NG: Non existing of keys.		In STOP (no disc) mode, press [STOP] button on the main unit, and [DISC] button on the remote control unit. Cancelled automatically 5 seconds later.
DVD Module P.C.B. Reset	To reset DVD Module P.C.B. This process is used when the DVD Module P.C.B. or FLASH ROM IC is replaced with a new one.		While in initialization mode, press & hold [STOP] button on the main unit, follow by [OK] button on the remote control unit. Cancelled automatically 5 seconds later.

6.4.5. Service Mode Table 5

Mode Name	Item Description	FL Display	Key Operation Front Key
Timer 1 check	Timer 1 check Laser operation timer is measured separately for DVD laser and CD laser. FL Display sequence: Display 1→2.	(Display 1)  DVD laser usage time Shown to the above is DVD laser usage time, and to the below is CD laser usage time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999". (DVD laser) (Display 2)  CD laser usage time Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999". (CD laser)	In STOP (no disc) mode, press [STOP] button on the main unit, and [▲] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] button for next page of FL Display.
Timer 1 reset	Timer 1 reset Laser operation timer of both DVD laser and CD laser is reset all at once.	 Time is shown in 4 digits of decimal notation in a unit of 10 hours. It will clear to "0000" upon reset.	While displaying Timer 1 data, press [STOP] button on the main unit, and [▼] button on the remote control unit. Cancelled automatically 5 seconds later
Timer 2 check	Timer 2 check Spindle motor operation timer	 Time is shown in 5 digits of decimal notation in a unit of 1 hour. "00000" will follow "99999".	In STOP (no disc) mode, press [STOP] button on the main unit, and [▶] button on the remote control unit. Cancelled automatically 5 seconds later.
Timer 2 reset	Timer 2 reset Spindle motor operation timer	 Time is shown in 5 digits of decimal notation in a unit of 1 hour. It will be cleared to "00000" upon activating this.	While displaying Timer 2 data, press [STOP] button on the main unit, and [◀] button on the remote control unit. Cancelled automatically 5 seconds later.

6.4.6. Optical Pick-up Self-Diagnosis

The optical pickup self-diagnosis function and tilt adjustment check function have been included in this unit. When repairing, use the following procedure for effective self-diagnosis and tilt adjustment. Be sure to use the self-diagnosis function before replacing the optical pickup when "NO DISC" is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than the specified value.

Note:

Press the power button to turn on the power, and check the value within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)

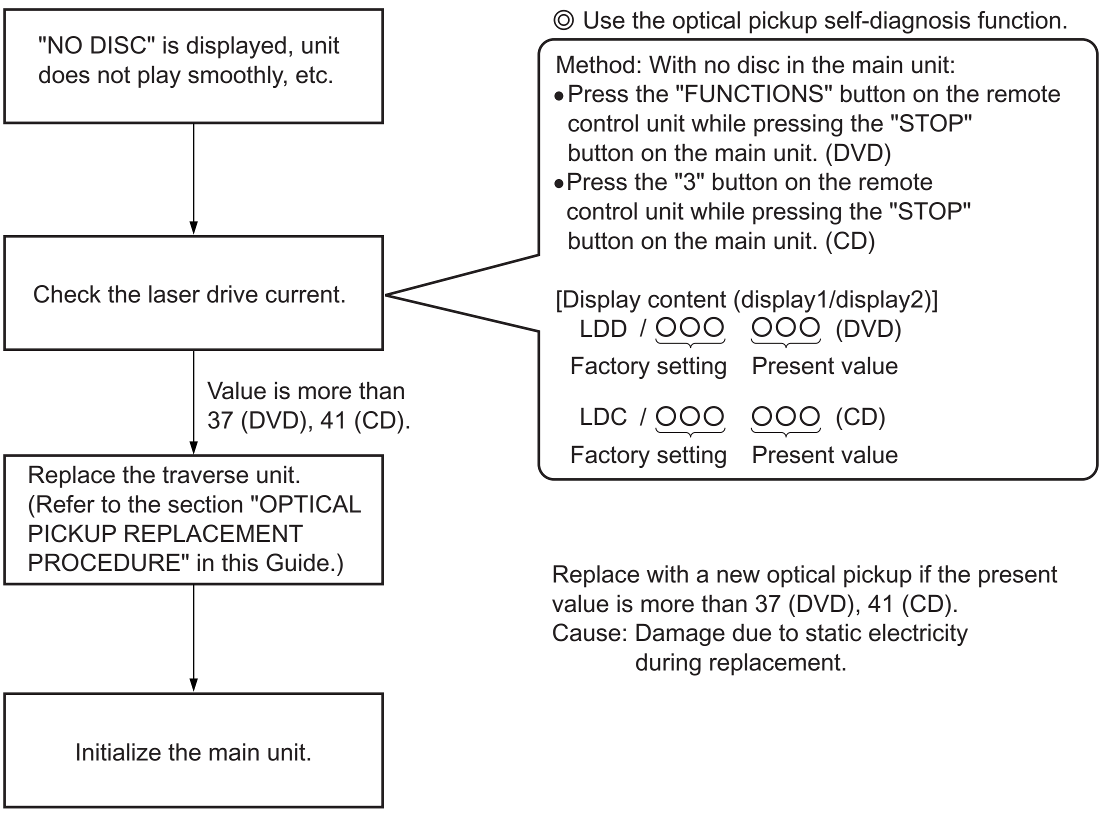


Figure 2

6.5. DVD Self Diagnostic Function-Error Code

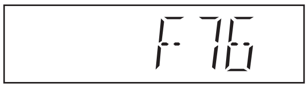
6.5.1. DVD Module Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
U702	HDMI/DVI I2C communication error	The communication error of I2C when connecting it with HDMI/DVI. For instance, when EDID information to which information on the TV set side has been described cannot be read, it is generated.	DVD U702	Press [■STOP] on main unit for next error.
U703	HDMI/DVI attestation error	When attestation (HDCP) with the TV side fails when connecting it with HDMI/DVI, it is generated.	DVD U703	Press [■STOP] on main unit for next error.
U704	HDMI/DVI SRM Riborcerar	It is generated at the equipment to which the TV set is Riborced when connecting it with HDMI/DVI.	DVD U704	Press [■STOP] on main unit for next error.
U705	HDMI/DVI SRM disk falsification check error	It is generated at the time of it is time when illegal the SRM data of the reproducing disk (verify error), when connecting it with HDMI/DVI.	DVD U705	Press [■STOP] on main unit for next error.
F740	HDMI device key	I2C error when writing HDMI Key device into transmitter.	DVD F740	Press [■STOP] on main unit for next error.
F893	FLASH ROM IC data falsification error	Firmware error, DV5.0 LSI IC (IC8651) error.	DVD F893	Press [■STOP] on main unit for next error.
F894	EEPROM IC abnormality error	When failing in the access to EEPROM IC located in the DVD Module P.C.B. (IC8611).	DVD F894	Press [■STOP] on main unit for next error.
F895	Language area abnormal	Firmware version agreement check for factory preset setting failure prevention.	DVD F895	Press [■STOP] on main unit for next error.
F897	Initialization error	Incomplete initialization after writing of new firmware (Factory preset setting failure prevention)	DVD F897	Press [■STOP] on main unit for next error.
F899	The communication specification disagreement between micro-processor	Unsuitable combination of number of system com and panel com used. (Frimware)	DVD F899	Press [■STOP] on main unit for next error.

6.5.2. DVD Mechanism Unit (CR14D) Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
H01	Tray loading error	The tray opening and closing is abnormal. CLOSE and OPEN of the tray cannot be carried out properly. Loading motor error, DV5 LSI IC (IC8001) error.	DVD H01	Press [■ STOP] on main unit for next error. (OPEN time: OPEN→ CLOSE→OPEN→ H01 at CLOSE: CLOSE →OPEN→CLOSE→ H01)
H02	Spindle servo error	The spindle servo/motor is abnormal. The FG pulse is abnormal. CLV servo error.	DVD H02	Press [■ STOP] on main unit for next error.
H03	Traverse servo error	The traverse is abnormal. (Traverse servo, DV5 LSI IC (IC8001), TRV motor error.)	DVD H03	Press [■ STOP] on main unit for next error.
H04	Tracking servo error	Tracking coil NG (OPU unit abnormal), DV5 LSI IC (IC8001) error.	DVD H04	Press [■ STOP] on main unit for next error.
H05	Seek time out error	It is not possible to access the disc. TOC cannot read. Abnormal disc etc. Pickup abnormal or disk is dirty. (TRV motor error, DV5 LSI IC (IC8001) error.)	DVD H05	Press [■ STOP] on main unit for next error.
H07	Driver IC thermal shut down	The spindle motor is abnormal. (short between brushes)	DVD H07	Press [■ STOP] on main unit for next error.
H15	Disc tray open detection switch failure	The disc tray cannot be opened & it closes spontaneously.	DVD H15	Press [■ STOP] on main unit for next error.
H16	Disc tray close detection switch failure	The disc tray cannot be closed & it opens spontaneously.	DVD H16	Press [■ STOP] on main unit for next error.
U11	Focus servo error	Focus coil, FE signal error.	DVD U11	Press [■ STOP] on main unit for next error. (Unfinalized DVD-R is likely to beocme U11.)
U15	Unfinalized DVD-R		DVD U15	
F500	DSC error	DV5 LSI IC (IC8001) stops in the occurance of servo error (startup, focus error, etc)	DVD F500	Press [■ STOP] on main unit for next error.
F506	Invalid media	Disc is flipped over, TOC unreadable, incompatible disc.	DVD F506	Press [■ STOP] on main unit for next error.
F620	OPU unit abnormality temperature	Laser protection at high temperature.	DVD F620	Press [■ STOP] on main unit for next error.
F621	OPU unit circuitry temperature	Laser protection at circuit failure.	DVD F621	Press [■ STOP] on main unit for next error.

6.5.3. Power Supply & Digital Amplifier Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F61	The abnormalities in an output or power supply circuit of POWER AMP	In normal operation, when DCDET2 goes to "L" (Low) (Not during POWER OFF condition), F61 appears on FLDisplay for 1 second and PCONT goes to "L" (Low).This is due to speaker output has DC voltage or fan is not working.		Press [■STOP] on main unit for next error.
F76	Abnormality in the output voltage of stabilized power supply	In normal operation when DCDET1 is detected "L" (Low) for two consecutive times, F76 is displayed on FL for 1 second and after that PCONT will be turned to "L" (Low). This is due to any of the DC voltages (+9V, +7V, -7V, +5V, +5.3V etc.) C22 not available.		Press [■STOP] on main unit for next error.

6.5.4. USB Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F650	USB device: Devices other than mass storage	Devices other than the mass storage class are connected.		Press [■ STOP] on main unit for next error.
F651	USB device: Non-Full Speed Device	The device that the transfer rate did not correspond to Full Speed was connected.		Press [■ STOP] on main unit for next error.
F652	USB device: Interface NG	The device in the interface (subclass) outside correspondence was connected. (correspondence interface) 001b: Reduced Block Commands (RBC) 010b: SFF-8020i. MMC-2 (ATAPI) 110b: SCSI transparent command set.		Press [■ STOP] on main unit for next error.
F655	USB device: Overcurrent detection	The overcurrent of 500mA or more was detected in VDD USB, and the USB device driver function was intercepted. (To intercept the current.)		Press [■ STOP] on main unit for next error.

6.5.5. DVD Changer Mechanism Unit (CR14D) Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
LOAD	Load operation faulty	The load operation cannot complete when time out occurs.	LOAD	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
UNLD	Unload operation faulty	The unload operation cannot complete when time out occurs.	UNLD	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
UP	Exchange open operation faulty	The exchange open operation cannot complete when time out occurs.	UP	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
DOWN	Down operation faulty	The down operation cannot complete when time out occurs.	DOWN	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
OPEN	Open operation faulty	The open operation cannot complete when time out occurs.	OPEN	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
CLOSE	Close operation faulty	The open operation cannot complete when time out occurs.	CLOSE	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
MODEL	Mode change to updown operation faulty	The mode change to updown operation cannot complete when time out occurs. It changes to up/down.	MODEL	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
MODEH	Mode change to horizontal operation faulty	The mode change to horizontal operation cannot complete when time out occurs.	MODEH	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.
INITIALIZE	Initialize operation faulty	The initialize operation cannot complete.	IN IT	For DVD Mechanism unit (CR14D). Press [EXCHANGE] on main unit for next error.

6.5.6. Deck Mechanism Error Code Table

Error Code	Diagnosis Contents	Description of Error	Automatic FL Display	Remarks
H01	Mode SW, plunger and capstan motor abnormal	Normal operation during mecha transition, MODE SW abnormal is memorized. The content of abnormality can be confirmed in the abnormal detection mode explained in the later section.	H01	For deck mechanism unit. Press [STOP, ■] on main unit for next error.
H02	Rec INH SW abnormal	The content of abnormality can be confirmed in the abnormal detection mode explained in the later section,	H02	For deck mechanism unit. Press [STOP, ■] on main unit for next error.
H03	HALF SW abnormal		H03	For deck mechanism unit. Press [STOP, ■] on main unit for next error.
F01	Reel pulse abnormal		F01	For deck mechanism unit. Press [STOP, ■] on main unit for next error.

6.6. Sales Demonstration Lock Function

This function prevents discs from being lost when the unit is used for sales demonstrations by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

6.6.1. Setting

- **Prohibiting removal of disc**
  1. Select the DVD/CD function.
  2. At POWER ON condition, press and hold down the ■ button and the power button on the main unit for at least three seconds. (The message, “LOCKED” appears when the function is activated.)

Note:

OPEN/CLOSE ⏏ button is invalid and the main unit displays “LOCKED” while the lock function mode is entered.

- **Prohibiting operation of selector and disc**
  1. Select the DVD/CD function.
  2. At POWER ON condition, press and hold down the ▶ button and the power button on the main unit for at least three seconds. (The message, “LOCKED” appears when the function is activated.)

Note:

The following buttons are invalid and the main unit displays “LOCKED” while the lock function mode is entered.

Main unit	⏏OPEN/CLOSE, ■/-TUNE MODE/—FM MODE, SELECTOR, ⏮/◀◀/∨, ∧/⏭/▶▶
Remote controller unit	iPod/USB, FM/EXT-IN, NUMERIC KEYS 0~9, ≧10, ⏮, ⏭, ◀◀, ▶▶, ■, ❚❚, RETURN, FUNCTIONS, FL DISPLAY/SLEEP, MUTING

6.6.2. Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOCKED" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

7 Troubleshooting Guide

7.1. Troubleshooting Guide for F61 and/or F76

This section illustrates the checking procedures when upon detecting the error of “F61” and/or “F76” after power up of the unit. It is for purpose of troubleshooting and checking in SMPS, D-Amp & Main P.C.B.

7.1.1. Block Diagram

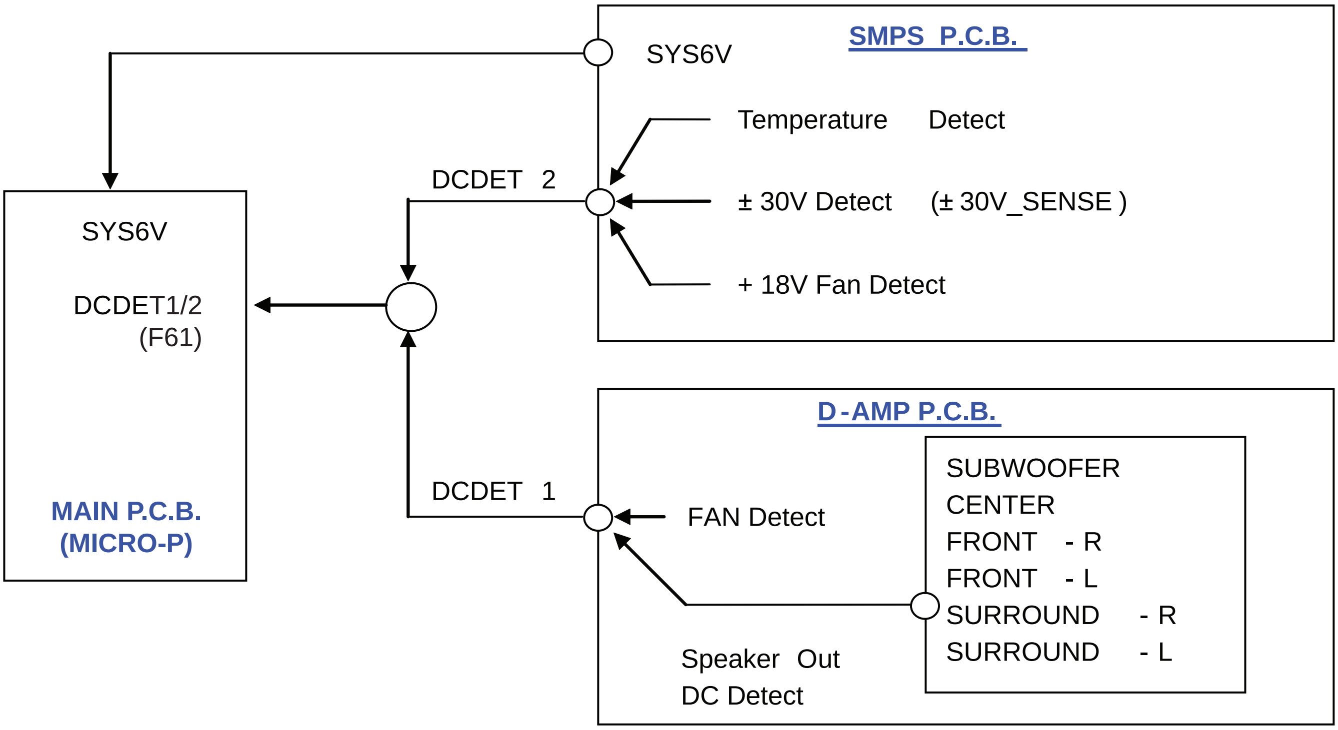


Figure 1

7.1.2. Troubleshooting Guide

Symptom	Checking Items	Repair Items	Remarks
FL display blinking with abnormal segment when power ON the set or "F61"	Check the soldering of the SMPS P.C.B. • Is there any solder crack at area (Q5860,Q5861, Q5862,TH5860) • Check all the supply line ± 30V • Is there any solderability at area of feedback circuit • Check feedback circuit (IC5801, Q5802, D5806, PC5720, D5725)	Touch-up the solder crack area/ Change the defective parts. • Q5860,Q5861,Q5862,TH5860 (Temperature Detect) • QR5801 & QR5802 (± 30V Detect) • Touch-up the necessary areas • IC5801, Q5802, D5806, PC5720, D5725	SMPS P.C.B. Refer to Figure 2
First Power ON Display immediate show "F61".	Check Speaker output by using multi-meter, • If there is a DC Voltage around ± 30V • Check Output IC (Pin 10 & 14) which have DC Voltage at Speaker output short to ± Vdd/Vss • If shorted that means D-Amp damage already.	Change the defective parts. D-AMP IC: IC5000/IC5200/IC5300/IC5400 P/N = C1BA00000492 For Configuration Refer to Figure 5	D-AMP P.C.B. Refer to Figure 3
Power ON for a while then only trigger "F61". (Symptom always happen)	Check the fan connection & feedback loop: • If the fan not proper connected, "F61" will trigger when the volume increase. • If the fan is not working, check for fan circuit. Check the soldering of the SMPS P.C.B. • Is there any solder crack at area (Q5860,Q5861, Q5862,TH5860) • Check all the supply line + 30V • +18V at ZJ2701 (Pin 8 & 9)	Re-connect the Fan to CN2810 Fan circuit: Q2942, Q2943, Q2948 & Q2949 Touch-up the solder crack area/ Change the defective parts. • Q5860,Q5861,Q5862,TH5860 (Temperature Detect) • QR5801 & QR5802 (± 30V Detect) Feedback Circuit: IC5801, Q5802 PC5720, D5725, D5806	Main P.C.B. Refer to Figure 4 D-Amp P.C.B. Refer to Figure 3
Power ON for a while and then trigger "F76"	Check all supply voltages as follows: Step 1: Check for supply voltages from SMPS P.C.B to Main P.C.B at pin 2,5,8,9 of CN5802. If there are supply voltages, proceed to Step 2. If no voltages detected, check wire connection and circuitry connection from SMPS P.C.B. Step 2: Check if there is supply voltages for –Vp, FL1 & FL2 CN2807 • If there is supply voltages of +2.7V at CN2801, Pin 19 & 17 +5V at CN2801, Pin 26 +5V at CN2807, Pin 5 • If there is supply voltages of ±9V at CN6001	Check and change the possible defective parts. • FP2901 (Fuse Protector), T2900, D2901 • IC4000 (Switching Regulator IC) & related regulator circuit components	Main P.C.B. Refer to Figure 4

7.1.3. Part Location

7.1.3.1. SMPS P.C.B.

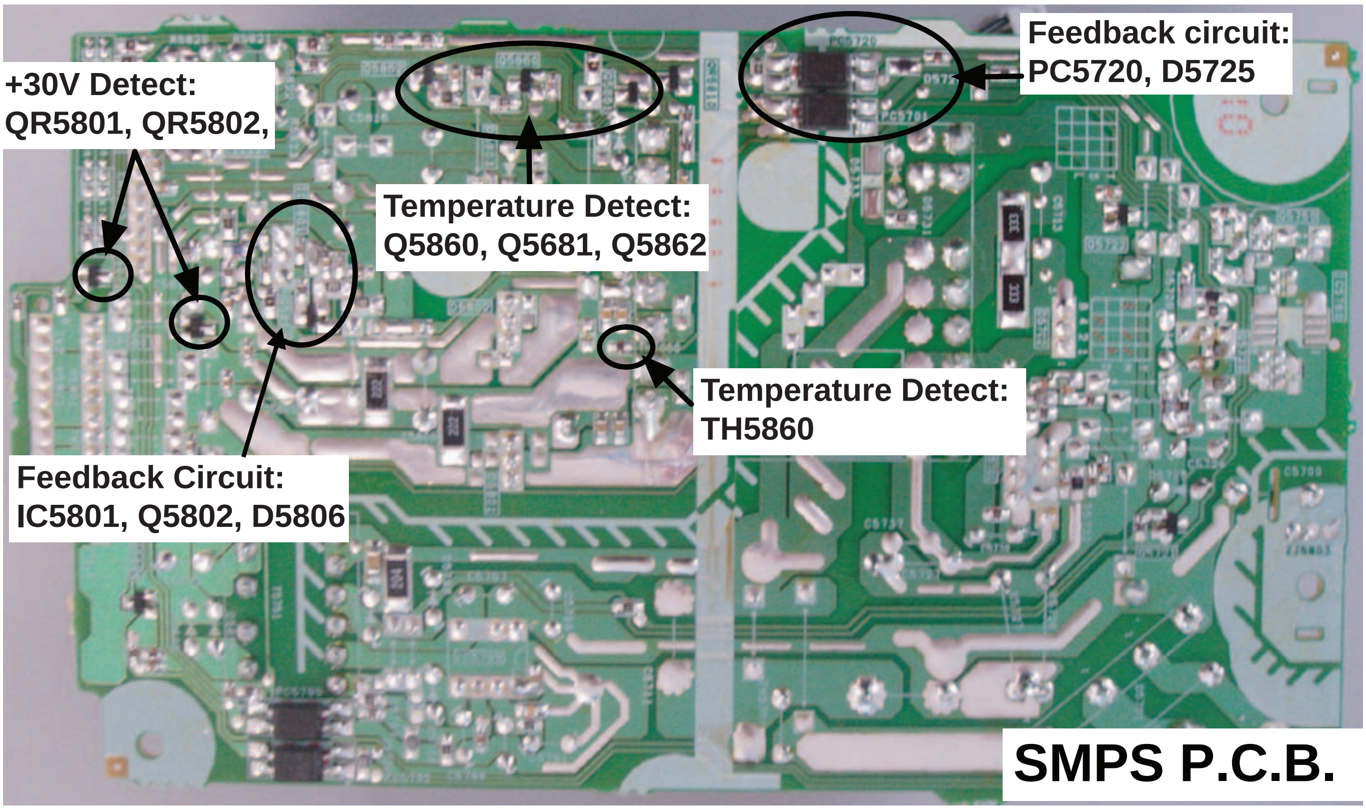


Figure 2 SMPS P.C.B.

7.1.3.2. D-Amp P.C.B.

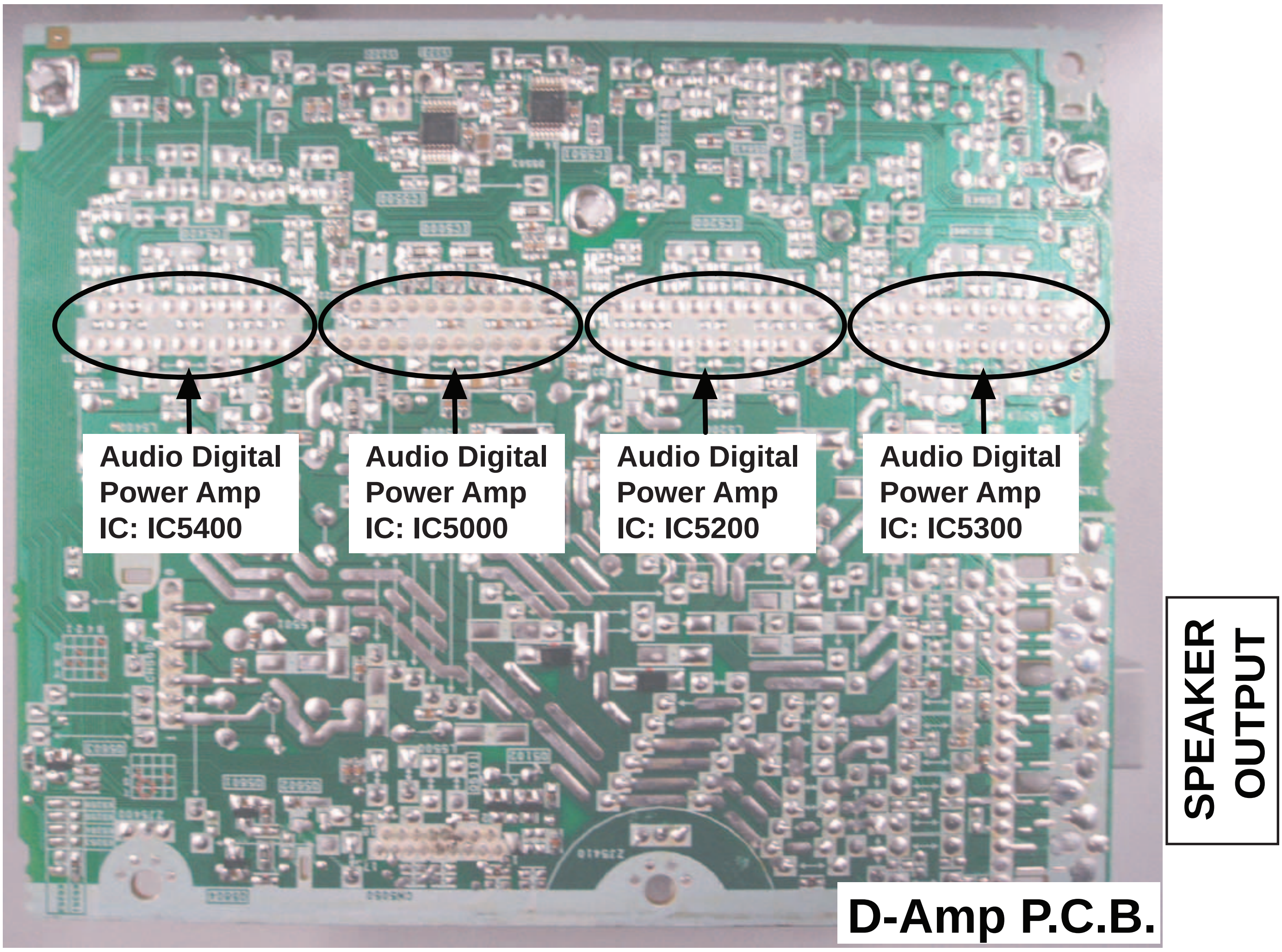


Figure 3 D-Amp P.C.B.

7.1.3.3. Main P.C.B.

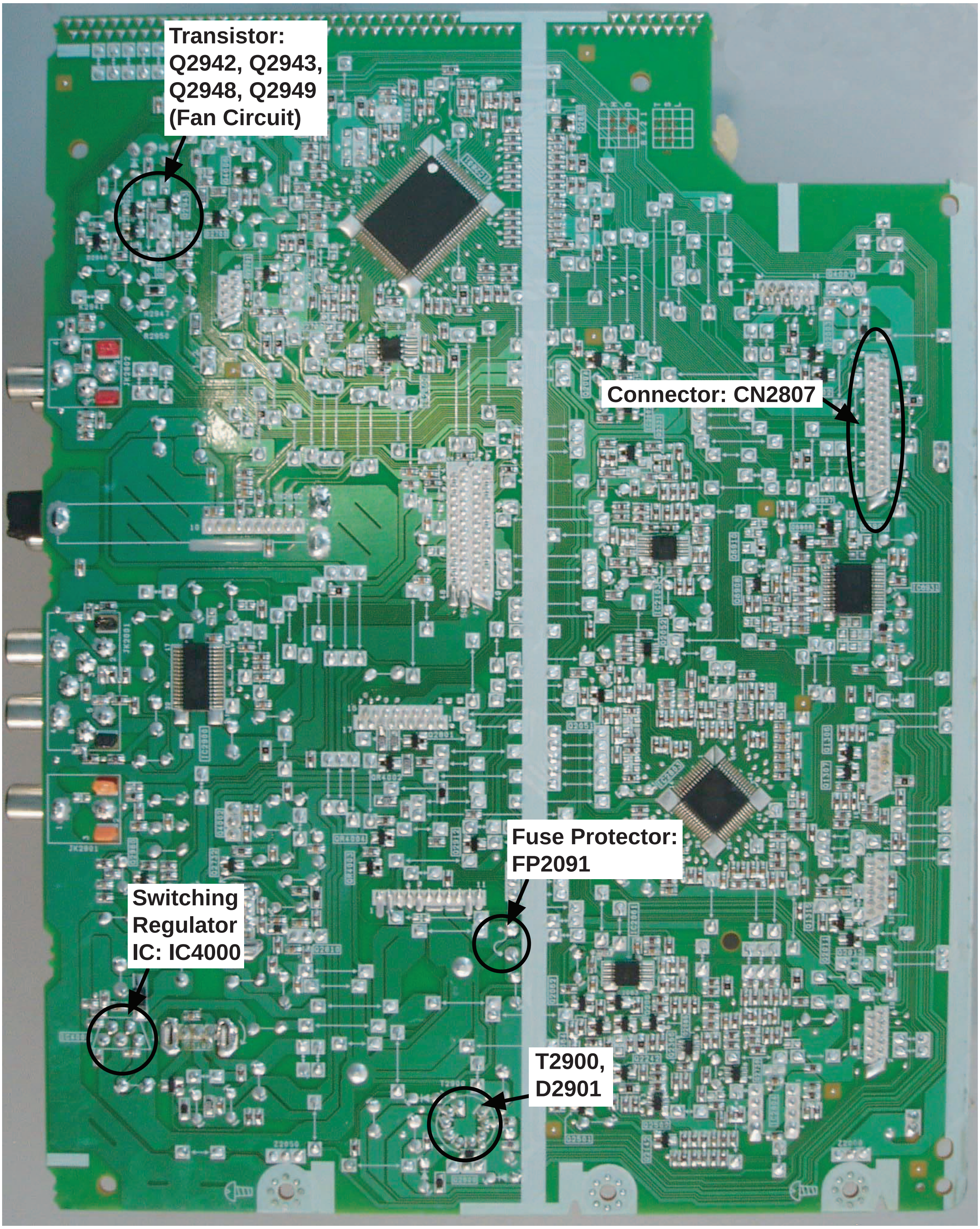


Figure 4 Main P.C.B.

7.1.3.4. D-Amp IC Configuration

		VK880PU-K
IC5300	Pin (10)	Sub-Woofer +
	Pin (14)	Sub-Woofer -
IC5200	Pin (10)	Center +
	Pin (14)	Center-
IC5000	Pin (10)	Front Right
	Pin (14)	Front Left
IC5400	Pin (10)	Surround Right
	Pin (14)	Surround Left

Figure 5 D-Amp IC Configuration

7.2. Basic Troubleshooting Guide for Traverse Unit (DVD Module P.C.B.)

Problems	Checking Points	Checking components
1) Distorted picture or abnormal sound is head during the initialization	a) Check SDRAM address, data bus, CLK and other control signals waveform	IC8051
	b) Check video signals (Y,C)	LB8301, R8321, R8323, LB8302, R8325, R8327
	c) Check audio DAC circuitry * Compare the above with OK condition DVD Module P.C.B	IC8420 (Pin 3, 10 to 11) LB8421, LB8422 *Check for solder short and/or component missing/damaged
2) No TOC/Long TOC	a) Check motor driver circuitry (+5V)	IC8251 Pin 8, 21
	b) Check laser drive circuitry (Voltages & current)	Q8551, Q8552 (For DVD), Q8561, Q8562 (For CD)
	c) Check LSI IC connection to motor drive circuitry * Compare the above with OK condition DVD Module P.C.B.	IC8001 Pin 66, 67 IC8251 Pin 15 to 16, 17, 18 * Check for solder short and/or component missing/damaged
3) Disc not spinning 4) Traverse not moving 5) Traverse and spindle abnormal movement	a) Check connection from DVD Module to Traverse unit	FP8251
	b) Check motor driver circuitry on the voltages and control signals * Compare the above with OK condition DVD Module P.C.B.	IC8251 * Check for solder short and/or component damaged
6) Cannot read the disc but spindle motor is spinning - Cannot read CD/DVD	a) Check laser drive circuitry (voltages and current) - Check CD Laser Drive - Check DVD Laser Drive * Check voltages and LD current and compare with OK condition DVD Module P.C.B.	Q8551, Q8552, LB8551 (For DVD Laser Drive current) Q8561, Q8562, LB8561 (For CD Laser Drive current)
7) Block Noise during play	a) Check SDRAM IC address and data bus signal	IC8051
8) Jitter out of specification	a) Check LD current b) Check OPU (Change to other unit and confirmed operating condition)	OPU Unit (Traverse unit), FPC connection (FP8531 & FP8251)

8 Service Fixture & Tools

8.1. Service Tools and Equipment

Prepare service tools before process service position.

Service Tools		Remarks
Main P.C.B. (CN2808) - D-Amp P.C.B. (CN5050)	REEX0930 (17P FFC)	
Main P.C.B. (ZJ2701) - SMPS P.C.B. (CN5802)	REXX0680 (11P Cable)	
SMPS P.C.B. (H5801) - D-Amp P.C.B. (CN5500)	REXX0683 (8P Cable)	

9 Disassembly and Assembly Instructions

"ATTENTION SERVICER"
Be careful when disassembling and servicing.
Some chassis components may have sharp edges.

Special Note:

1. **This section describes the disassembly procedures for all the major printed circuit boards and main components.**
2. **Before the disassembly process was carried out, do take special note that all safety precautions are to be carried out.**
   (Ensure that no AC power supply is connected during disassembling.)
3. **For assembly after operation checks or replacement, reverse the respective procedures.**
   Special reassembly procedures are described only when required.
4. **Do take note of the locators on each printed circuit board during reassembling procedures.**
5. **The Switch Regulator IC may have high temperature after prolonged use.**
6. **Use caution when removing the top cabinet and avoid touching heat sinks located in the unit.**

CAUTION: HOT!!
PLEASE DO NOT
TOUCH THE HEAR SINK

7. **Select items from the following index when checks or replacement are required.**

- Disassembly of Top Cabinet
- Disassembly of DVD Mechanism Unit (CR14D)
- Disassembly of Rear Panel
- Disassembly of Front Panel Assembly
- Disassembly of Panel P.C.B., Volume P.C.B., Remote Sensor P.C.B., Side Bar (L/R) LED P.C.B.
- Disassembly of Mic P.C.B.
- Disassembly of USB P.C.B.
- Disassembly of Music Port P.C.B.
- Disassembly of CD Lid
- Disassembly of Deck Mechanism Unit
- Disassembly of Deck P.C.B.
- Disassembly of Deck Mechanism
- Disassembly of Deck Mechanism P.C.B.
- Disassembly of Cassette Lid
- Rectification for Tape Jam Problem
- Disassembly of D-Amp P.C.B.
- Replacement of Audio Digital Power Amp IC (IC5000)
- Replacement of Audio Digital Power Amp IC (IC5200)
- Replacement of Audio Digital Power Amp IC (IC5300)
- Replacement of Audio Digital Power Amp IC (IC5400)
- Disassembly of Main P.C.B.
- Disassembly of SMPS P.C.B.
- Replacement for Switching Regulator IC (IC5701)
- Replacement for Switching Regulator Diode (D5702)
- Replacement for Regulator Diode (D5801)
- Replacement for Regulator Diode (D5802)
- Replacement for Regulator Diode (D5803)
- Disassembly of AC Inlet P.C.B.
- Disassembly of Voltage Selector P.C.B.
- Disassembly of DVD Module P.C.B.
- Disassembling and Assembling of Traverse Unit.

Below shown is part no. of different screws types used:

CAUTION NOTE:
Please use original screw and at correct locations.

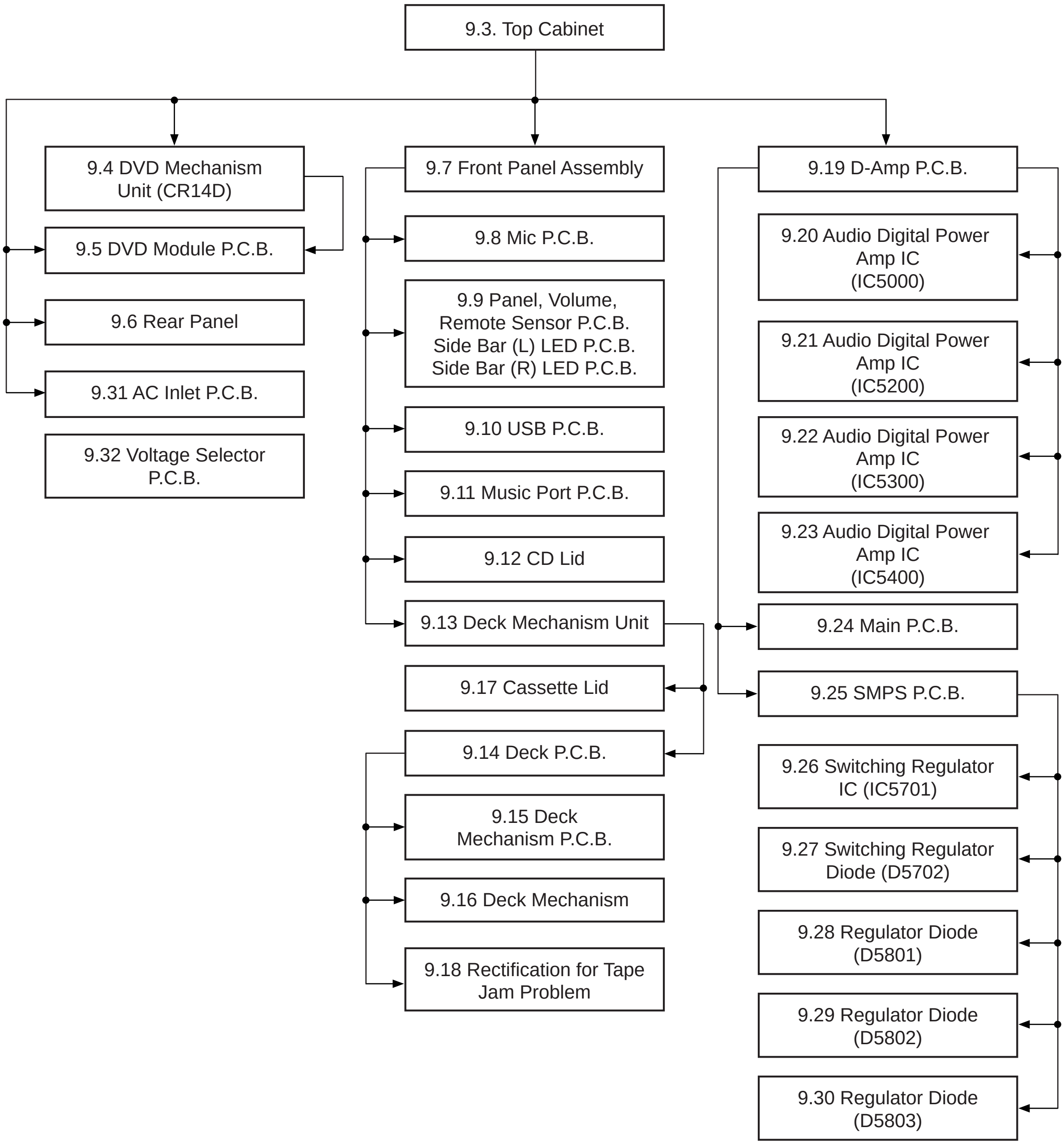
Below shown is part no. of different screw types used:

- a :RHD30007-K2J
- b :RHD30119-S
- c :XTW3+12TFJ
- d :RHD26043-1
- e :RHD30111-31
- f :RHD26046-L
- g :RHD30008
- h :XTV3+10GFJ-M
- i :XTB3+10JFJ
- j :XTW3+8TFJ
- k :XYC2+JF17FJ
- l :XTW2+5LFJ
- n :XTW26+10SFJ
- o :RHD26022-1

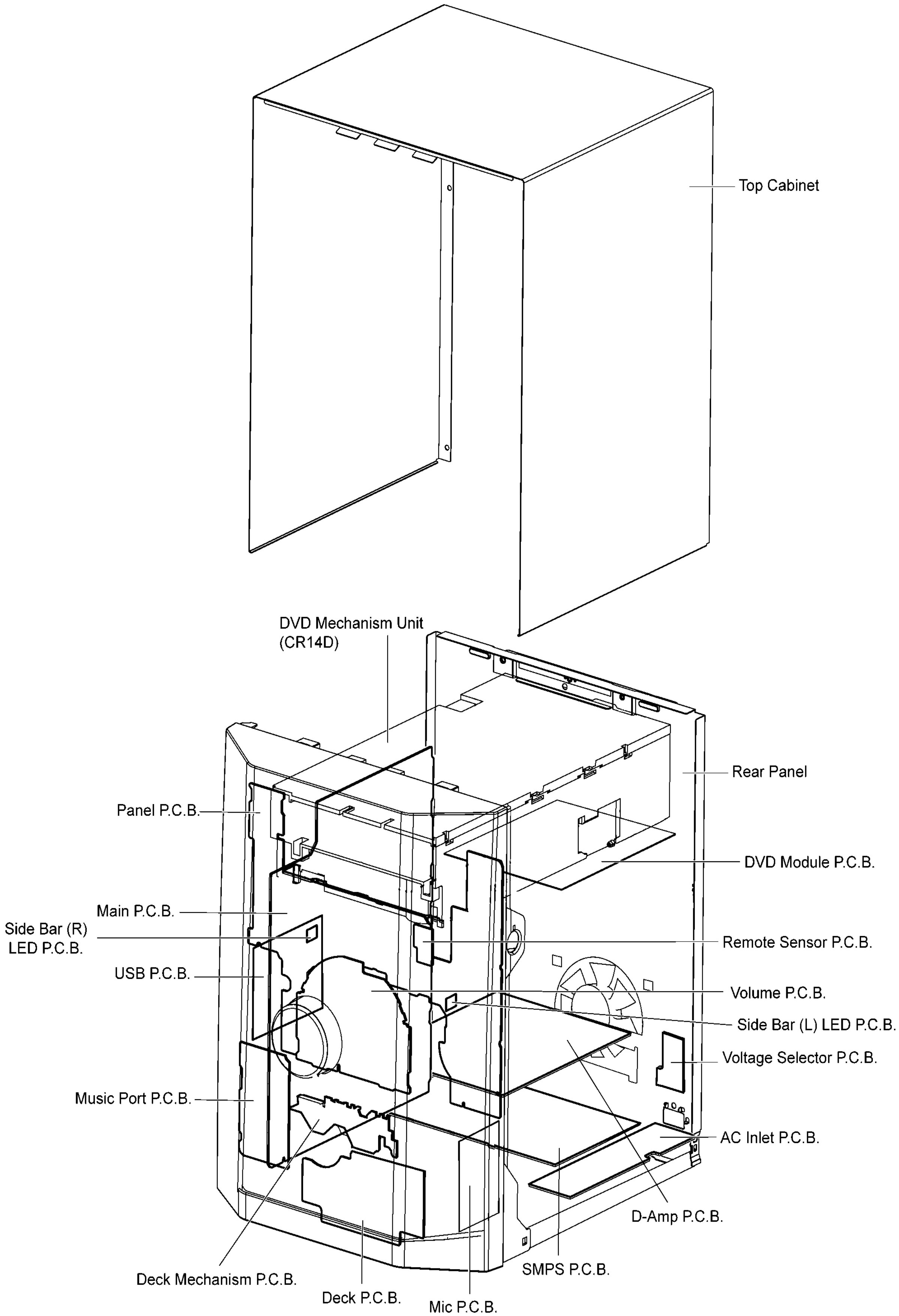
9.1. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

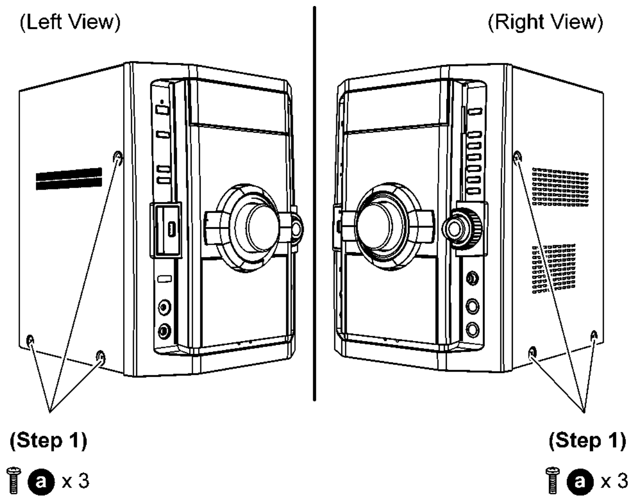
To assemble the unit, reverse the steps shown in the chart as below.



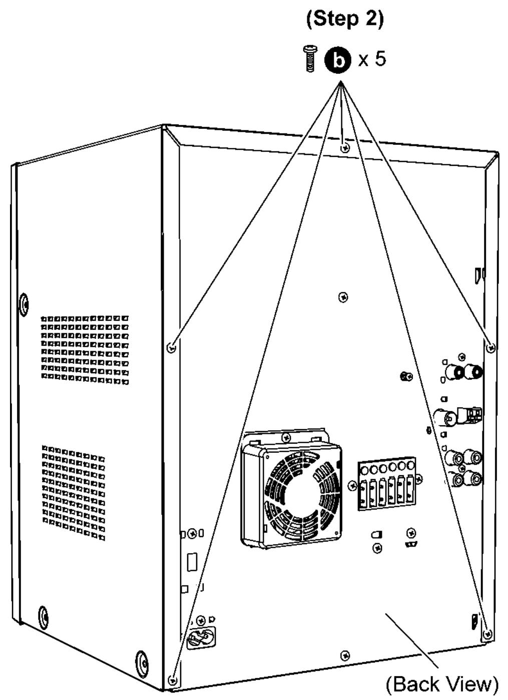
9.2. Main Components and P.C.B. Location



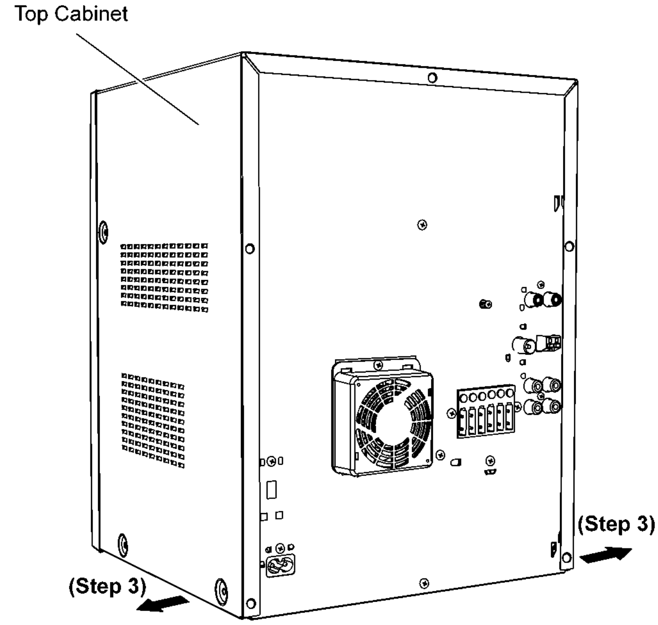
9.3. Disassembly of Top Cabinet



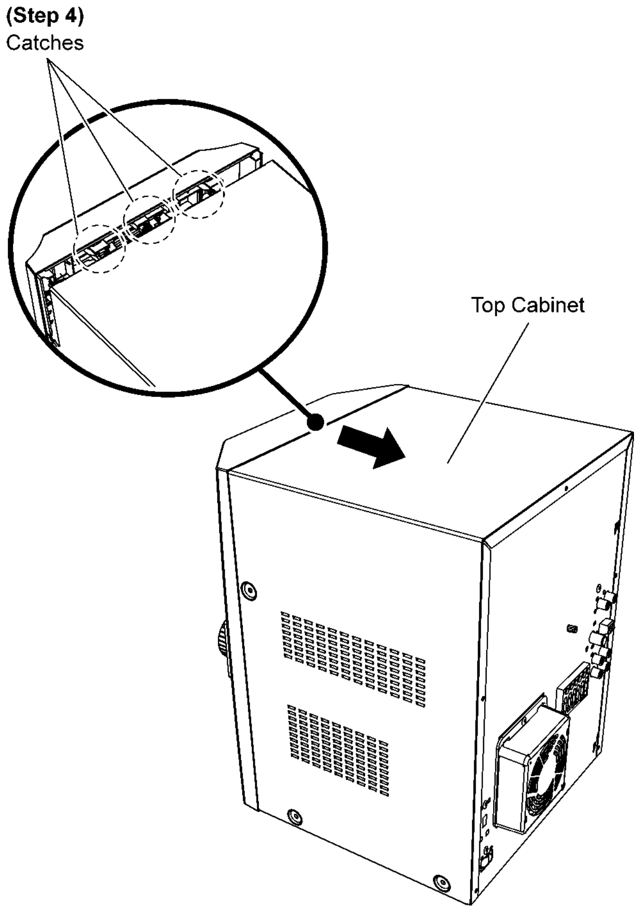
Step 1 Remove 3 screws on each side of the main unit.



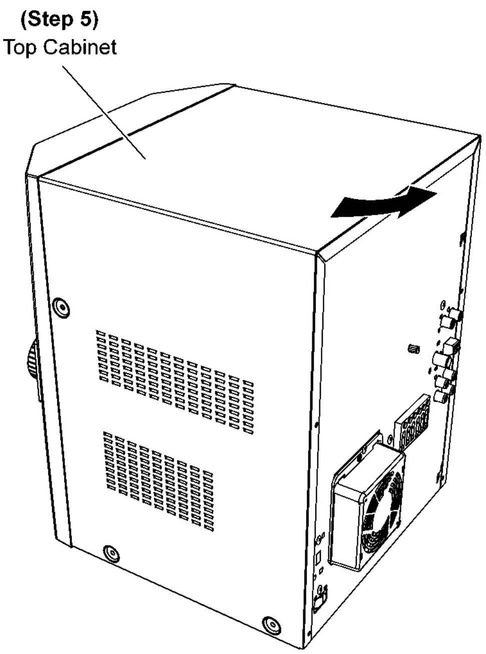
Step 2 Remove 5 screws.



Step 3 Lift the sides of top cabinet outwards as arrow shown.



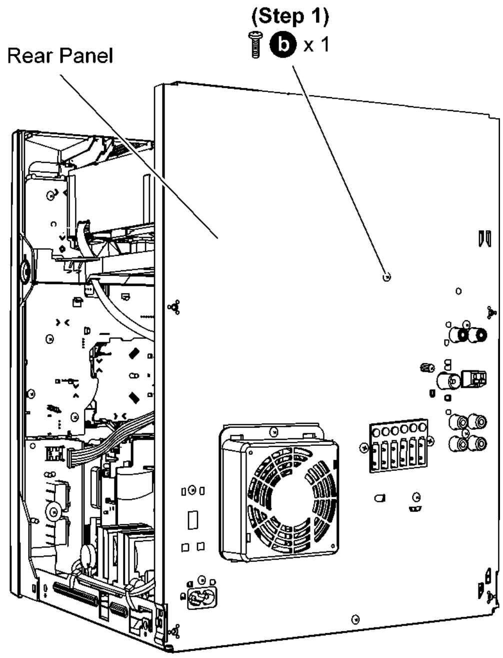
Step 4 Push the top cabinet backwards as arrow shown to release the catches.



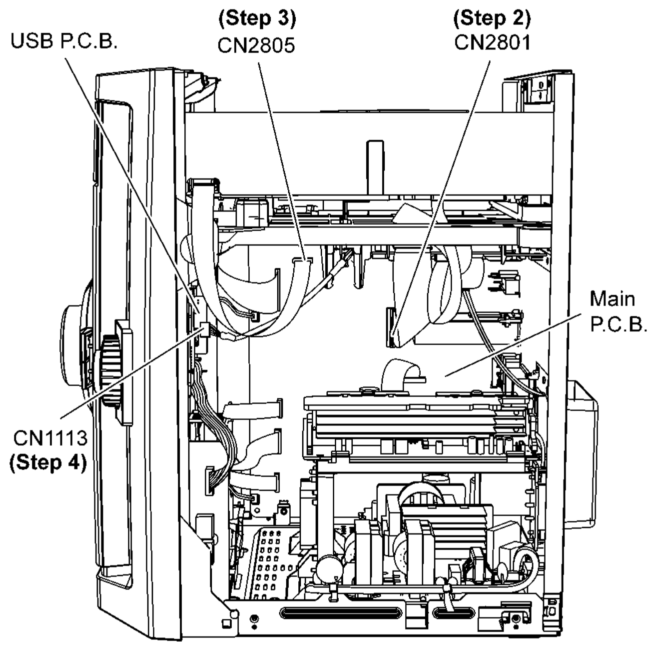
Step 5 Remove the top cabinet.

9.4. Disassembly of DVD Mechanism Unit (CR14D)

- Follow the (Step 1) to (Step 5) of Item 9.3



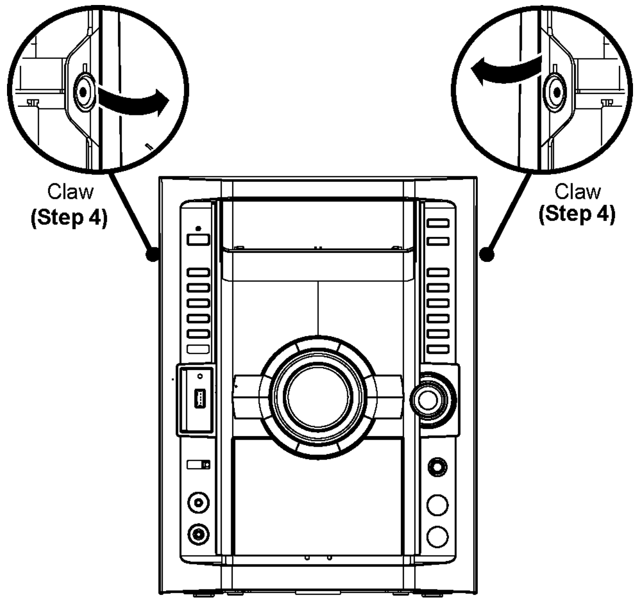
Step 1 Remove 1 screw at rear panel.



Step 2 Detach 50P FFC cable at the connector (CN2801) on Main P.C.B.

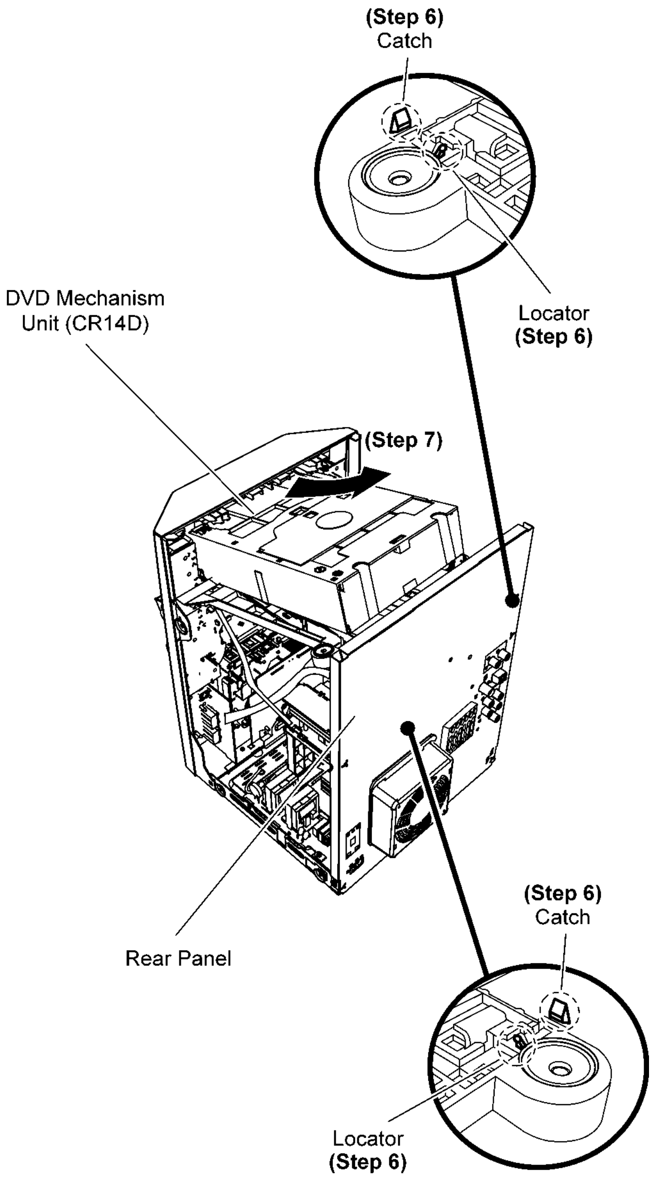
Step 3 Detach 11P FFC cable at the connector (CN2805) on Main P.C.B.

Step 4 Detach 5P cable at the connector (CN1113) on USB P.C.B.



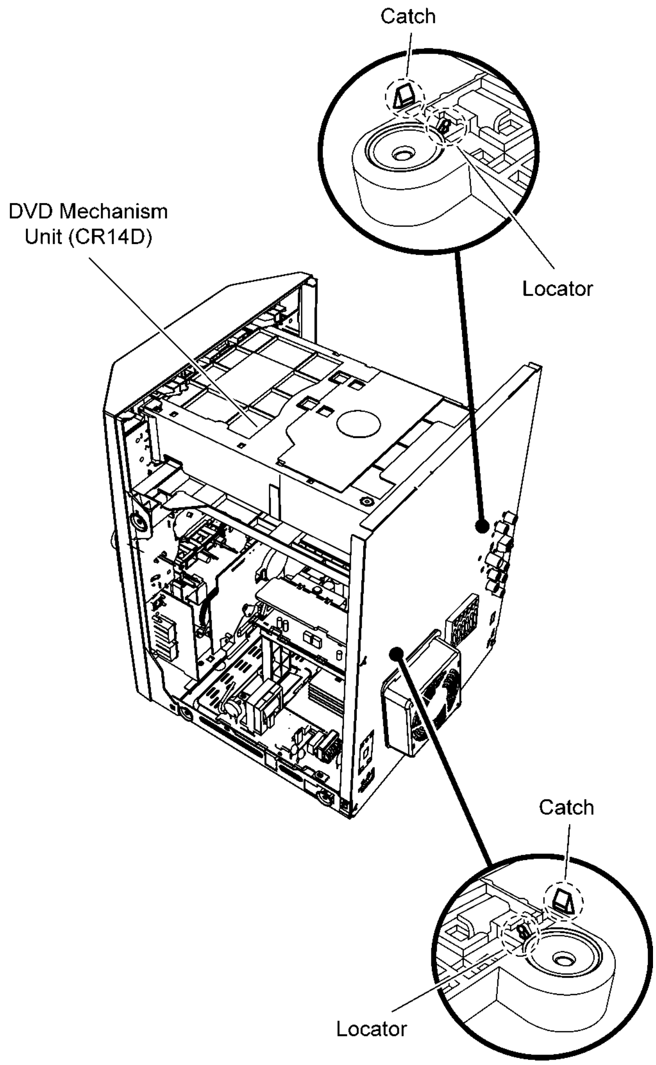
Step 5 Release the claws outwards on both sides.

Caution: During assembling, ensure the claws are fully catched.

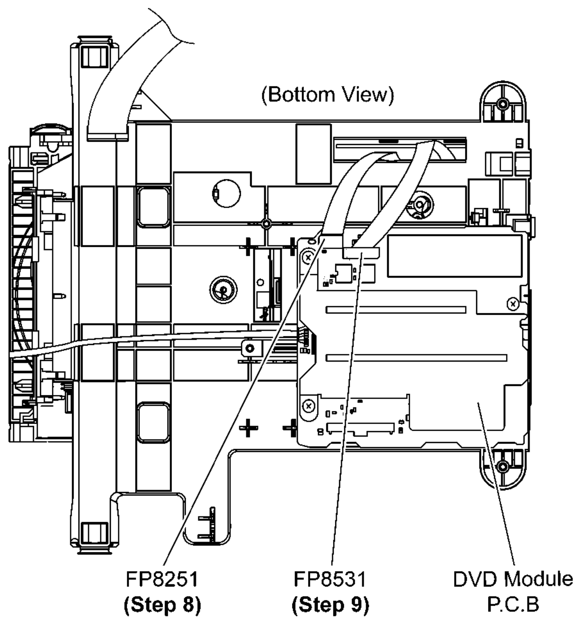


Step 6 Release the DVD Mechanism Unit (CR14D) from the catches and locators.

Step 7 Lift up DVD Mechanism Unit (CR14D) in the direction of arrow.



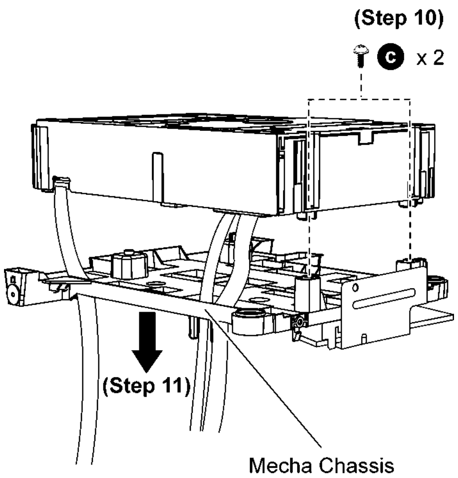
Caution: During assembling, ensure that the DVD Mechanism Unit (CR14D) is seated properly at the locator.



Step 8 Detach 7P FFC at the connector (FP8251).

Step 9 Detach 26P FFC at the connector (FP8531).

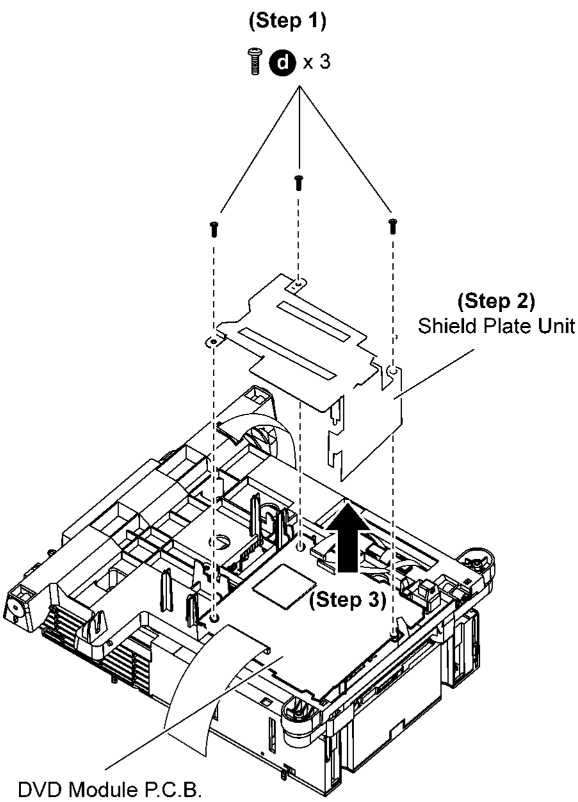
• Disassembly of Mecha Chassis



Step 10 Remove 2 screws.
Step 11 Remove Mecha Chassis as arrow shown.

9.5. Disassembly of DVD Module P.C.B.

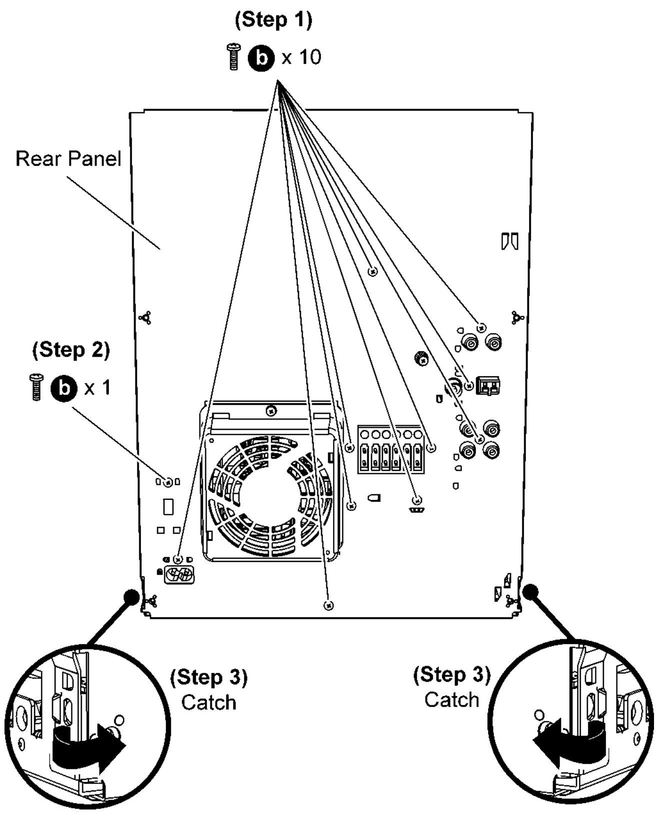
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 9) of Item 9.4



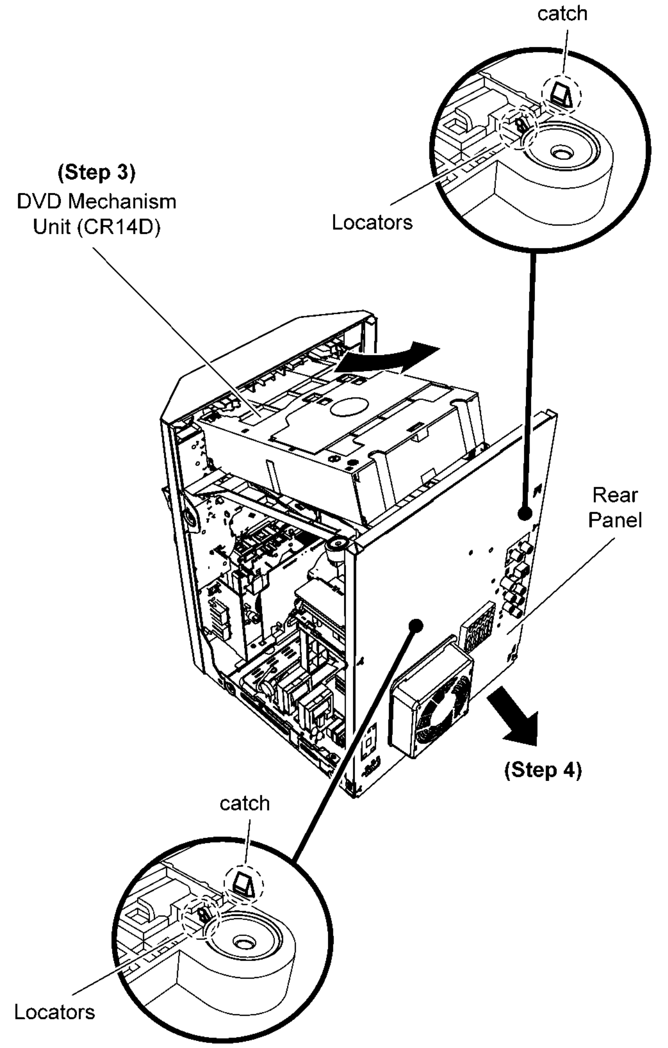
Step 1 Remove 3 screws.
Step 2 Remove the shield plate unit.
Step 3 Remove DVD Module P.C.B..

9.6. Disassembly of Rear Panel

- Follow the (Step 1) to (Step 5) of Item 9.3



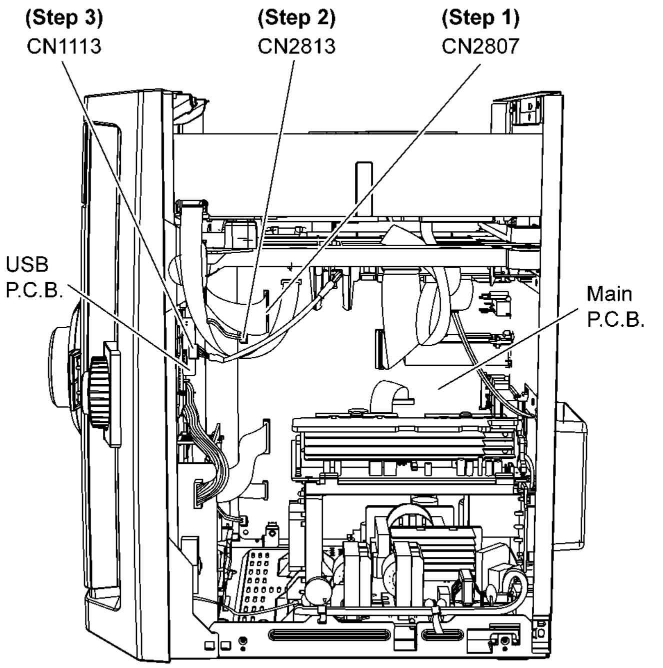
Step 1 Remove 10 screws at rear panel.
Step 2 Remove 1 screw at rear panel.
Step 3 Release 2 catches from the each side of the rear panel.



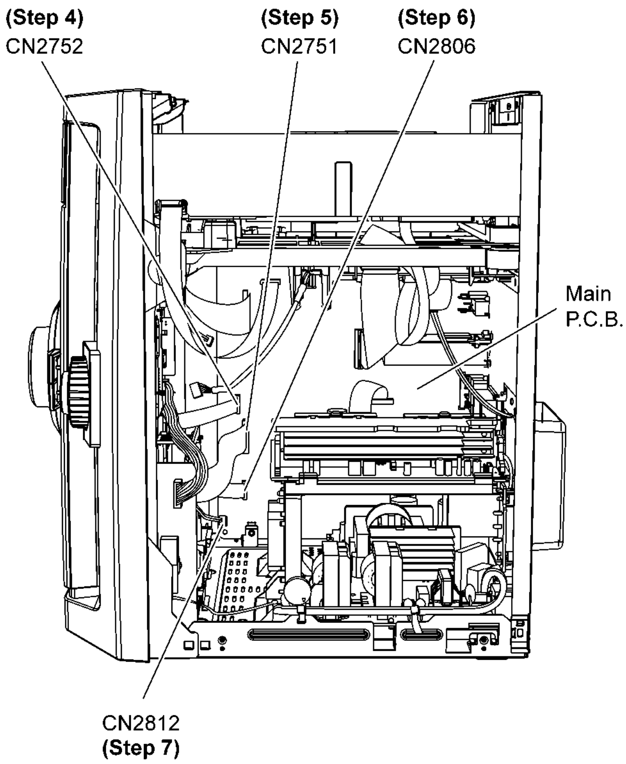
Step 3 Slightly lift up the DVD Mechanism Unit (CR14D) to release from the two locators.
Step 4 Remove rear panel in the direction of arrow.

9.7. Disassembly of Front Panel Assembly

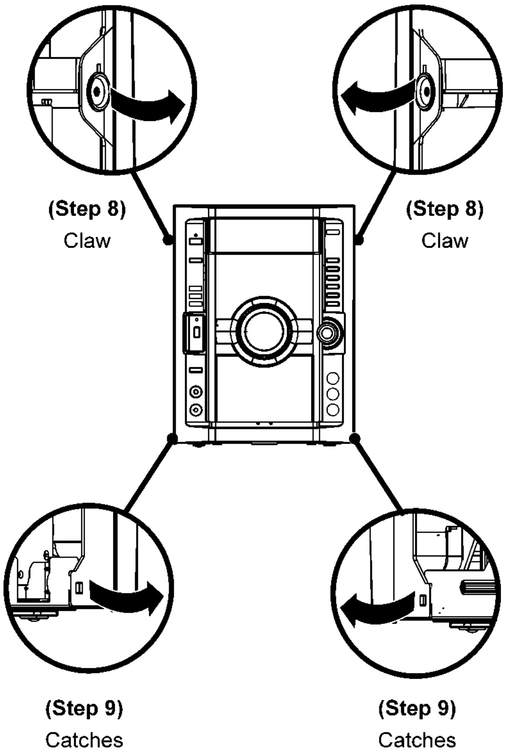
- Follow the (Step 1) to (Step 5) of Item 9.3



Step 1 Detach 27P FFC at the connector (CN2807) on Main P.C.B..
Step 2 Detach 2P cable at the connector (CN2813) on Main P.C.B..
Step 3 Detach 5P cable at the connector (CN1113) on USB P.C.B..



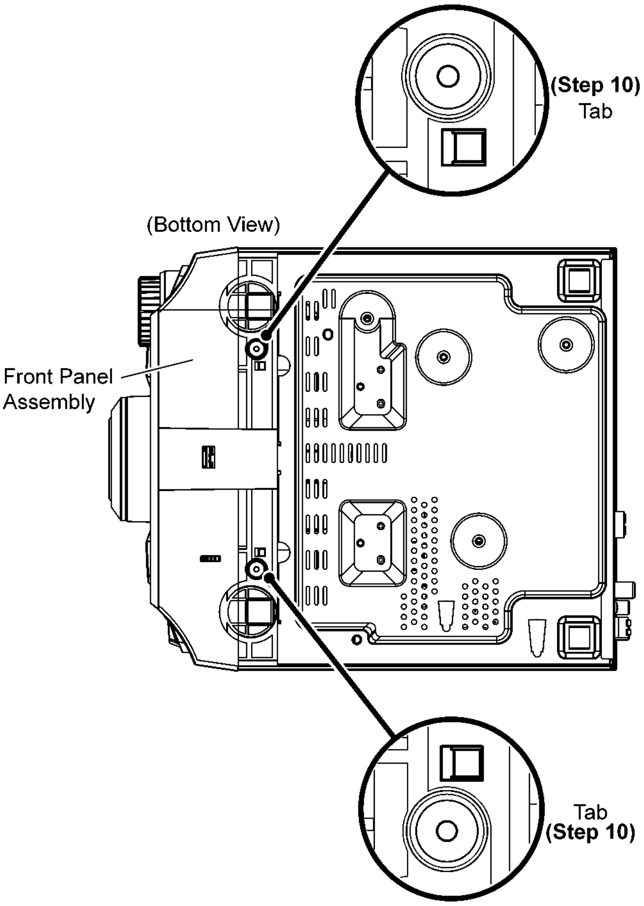
Step 4 Detach 10P FFC at the connector (CN2752) on Main P.C.B..
Step 5 Detach 12P FFC at the connector (CN2751) on Main P.C.B..
Step 6 Detach 10P FFC at the connector (CN2806) on Main P.C.B..
Step 7 Detach 2P cable at the connector (CN2812) on Main P.C.B.



Step 8 Release the claws on both sides.

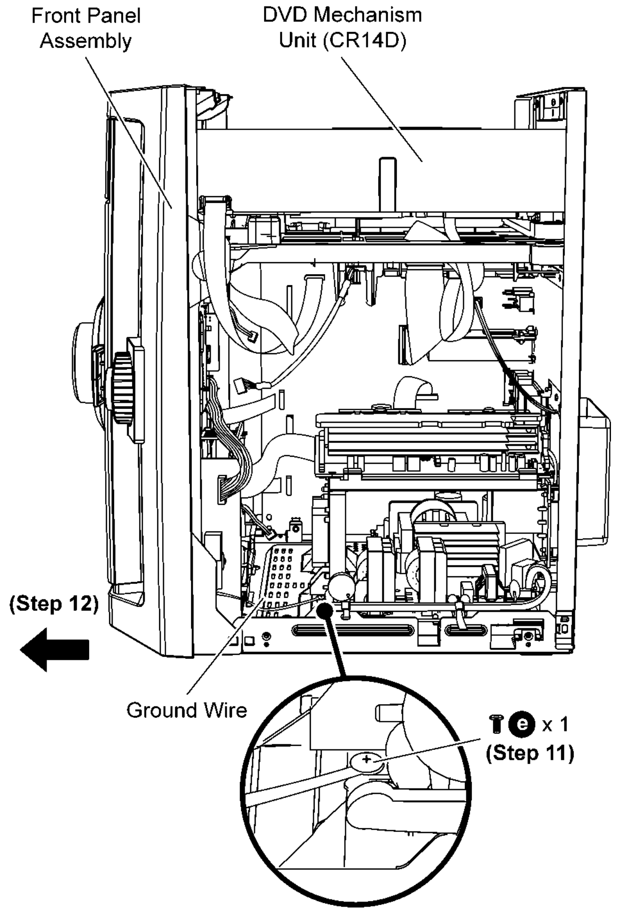
Step 9 Release catches at both side.

Caution: During assembling, ensure that both claws and catches are fully catched.



Step 10 Release the tabs at the bottom.

Caution: Do not exert strong force when releasing the tabs.

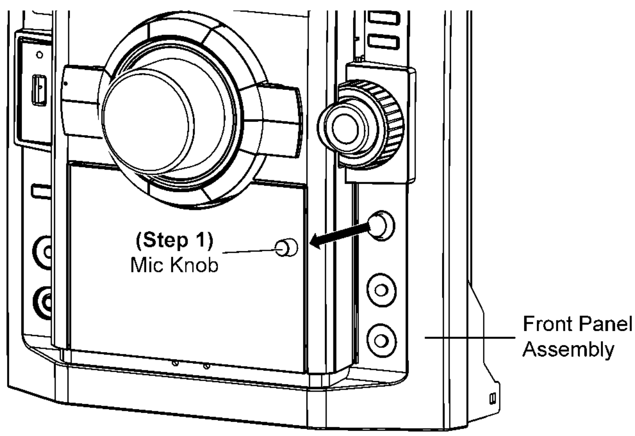


Step 11 Remove 1 screw to remove ground wire.

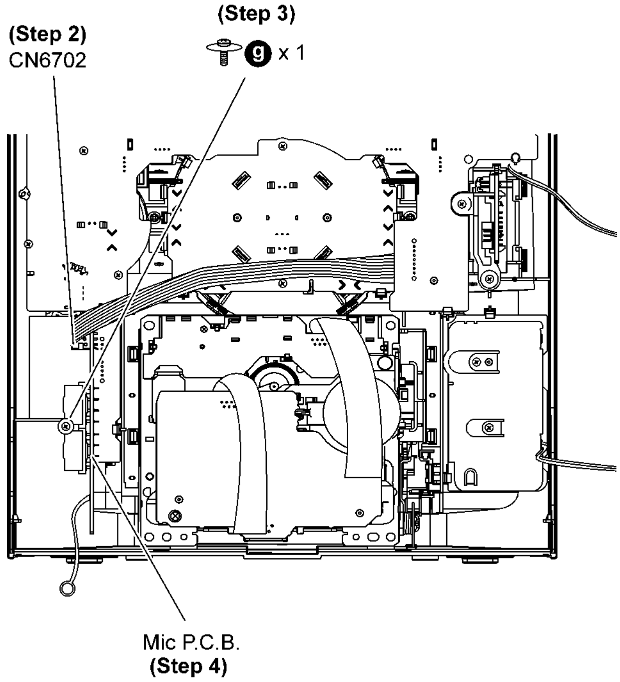
Step 12 Remove front panel assembly in the direction of arrow.

9.8. Disassembly of Mic P.C.B.

- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 12) of Item 9.7



Step 1 Remove Mic knob.



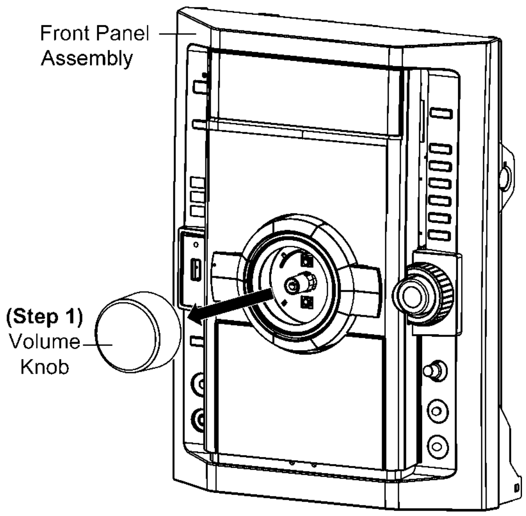
Step 2 Detach 7P cable at the connector (CN6702) on Mic P.C.B..

Step 3 Remove 1 screw on Mic P.C.B..

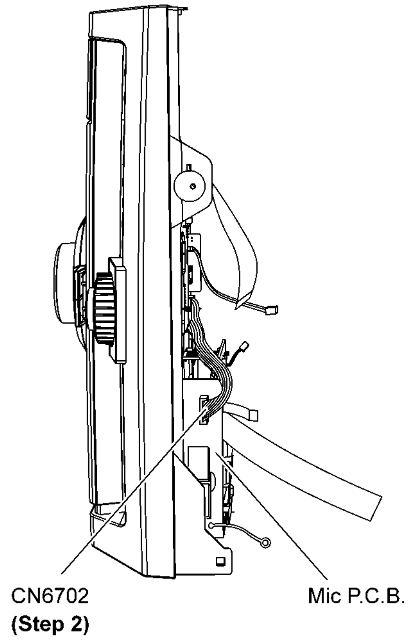
Step 4 Remove the Mic P.C.B..

9.9. Disassembly of Panel P.C.B., Volume P.C.B. & Remote Sensor P.C.B. , Side Bar (L) LED P.C.B. and Side Bar (R) LED P.C.B.

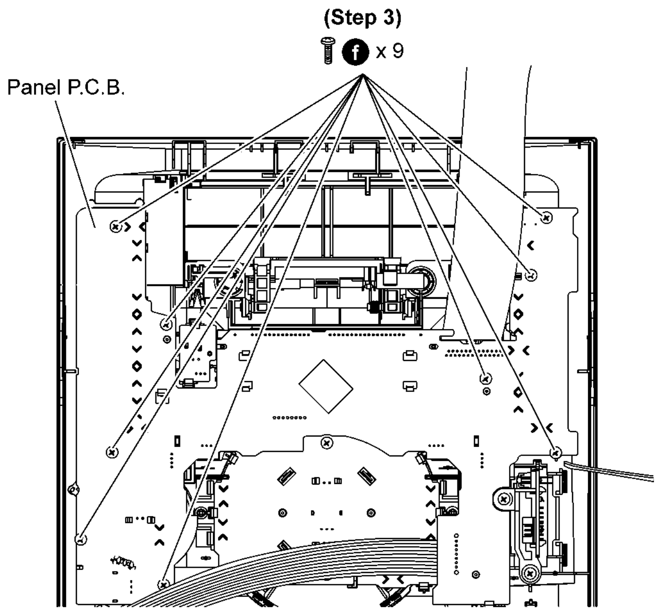
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 12) of Item 9.7
- Follow the (Step 2) of Item 9.8



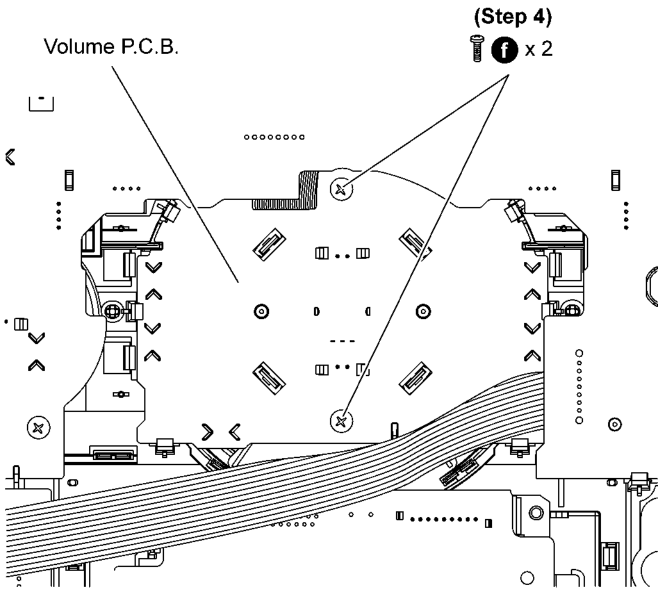
Step 1 Remove volume knob.



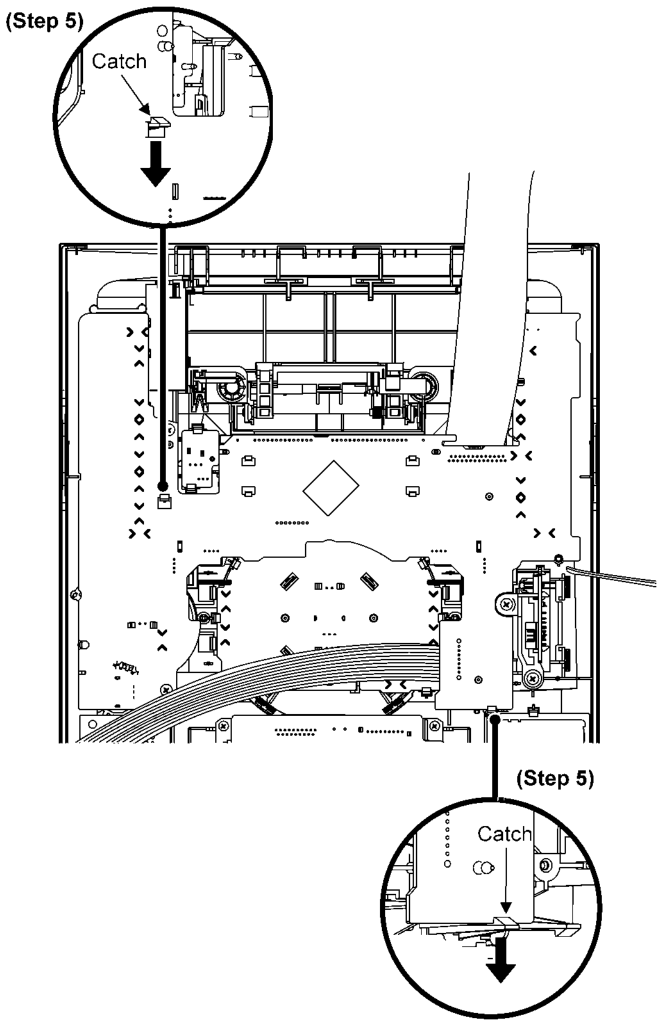
Step 2 Detach 7P cable at the connector (CN6702) on Mic P.C.B..



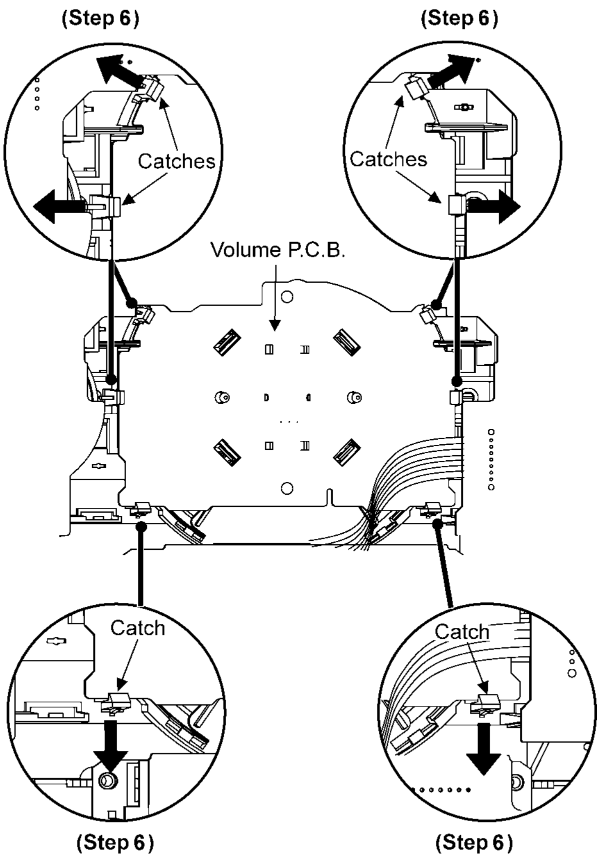
Step 3 Remove 9 screws at Panel P.C.B..



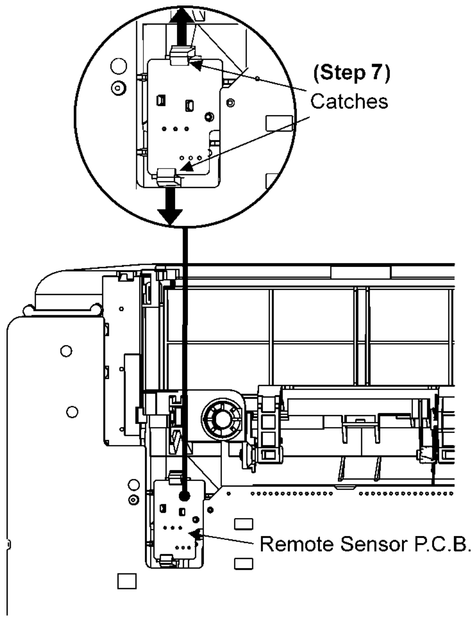
Step 4 Remove 2 screws on Volume P.C.B..



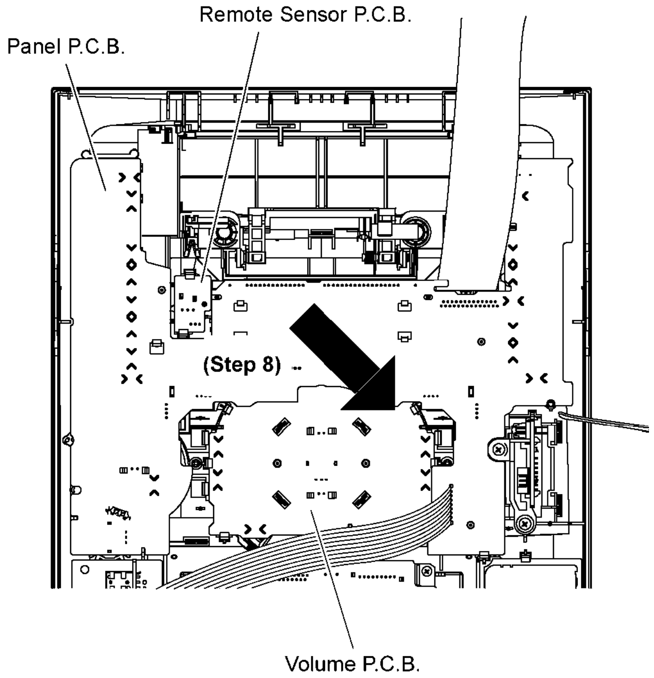
Step 5 Release 2 catches at Panel P.C.B..



Step 6 Release 6 catches at Volume P.C.B..

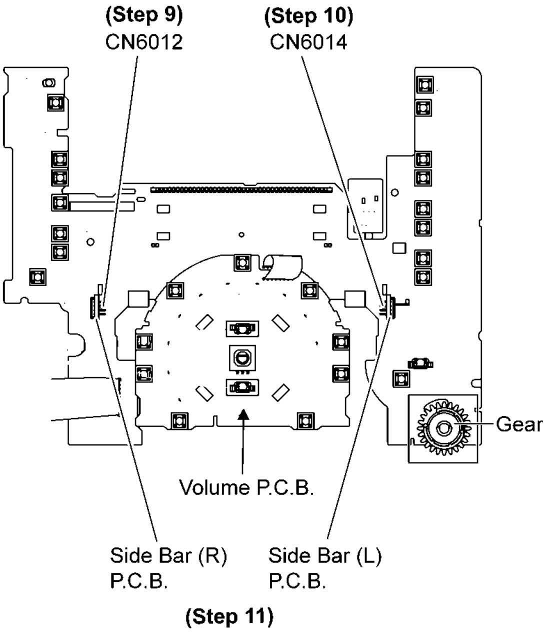


Step 7 Release 2 catches at Remote Sensor P.C.B..

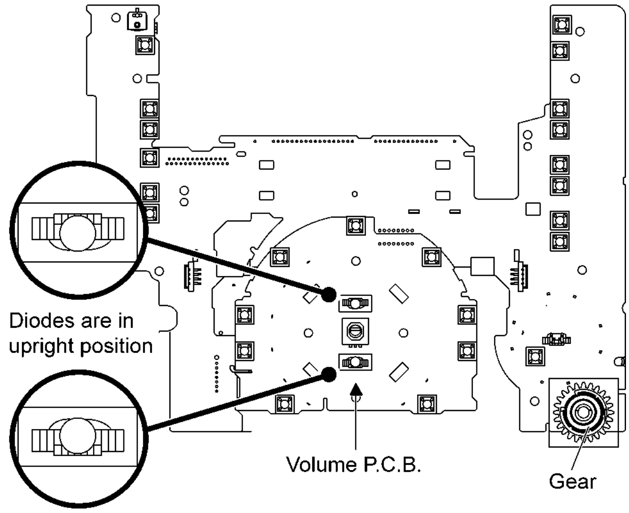


Step 8 Lift up the Panel P.C.B., Volume P.C.B. & Remote Sensor P.C.B. altogether as arrow shown.

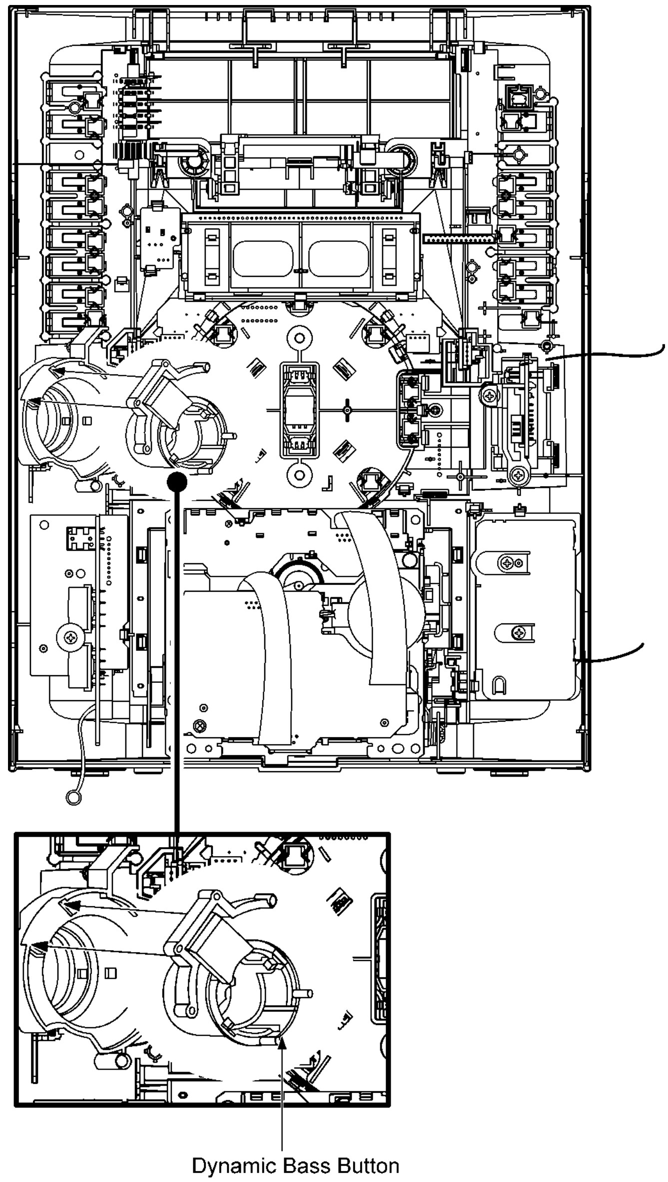
- **Disassembly of Side Bar (L) Led P.C.B. and Side Bar (R) P.C.B.**



Step 9 Detach Side Bar (L) P.C.B at the connector (CN6014) on Panel P.C.B..
Step 10 Detach Side Bar (R) P.C.B at the connector (CN6012) on Panel P.C.B..
Step 11 Remove the Side Bar (L) P.C.B. and Side Bar (R) P.C.B..



Caution: During assembling, ensure that the diodes shown on Volume P.C.B. are in upright position.

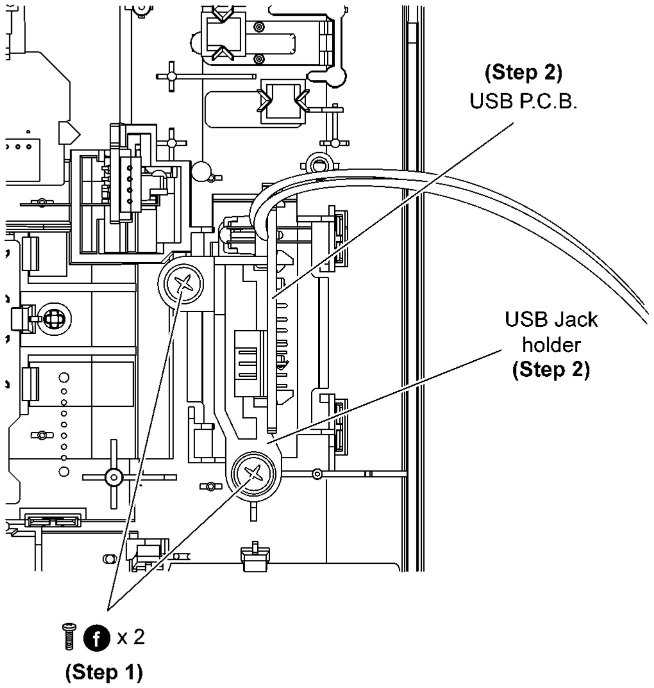


Caution: During assembling, ensure that Dynamic Bass Button is seated properly.

9.10. Disassembly of USB P.C.B.

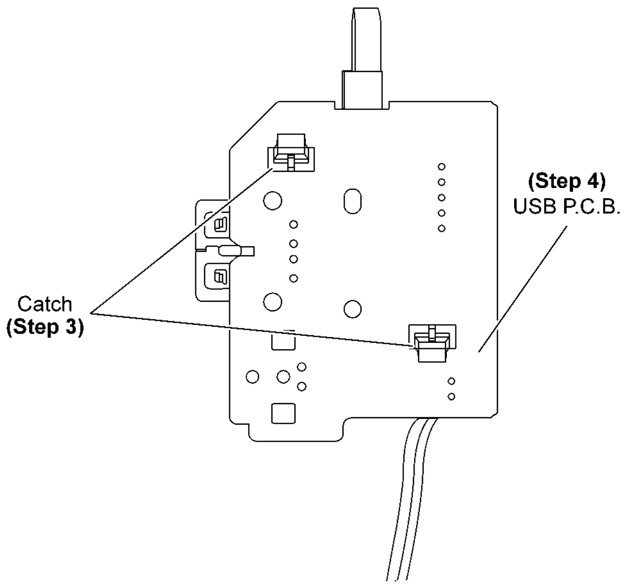
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 12) of Item 9.7

• **Disassembly of USB Jack holder.**



Step 1 Remove 2 screws at USB Jack holder.
Step 2 Remove the USB Jack holder together with USB P.C.B..

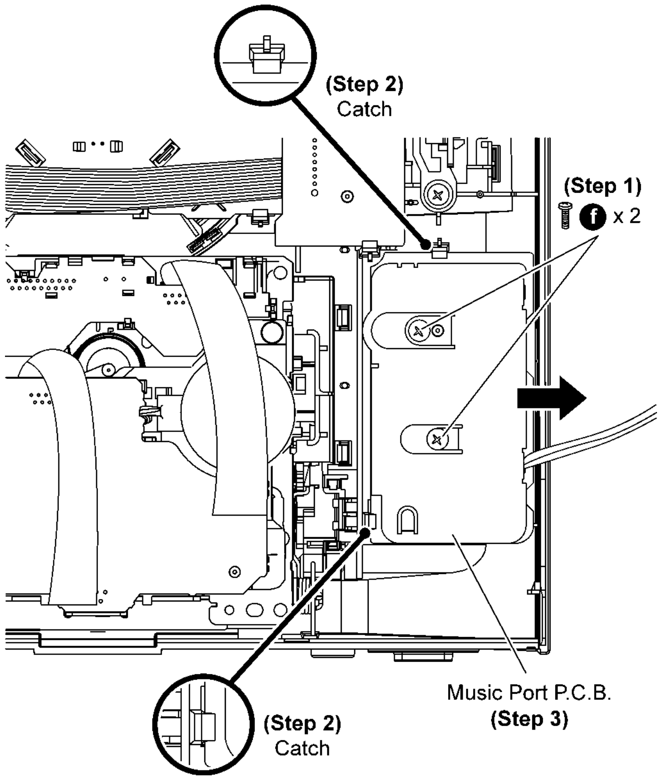
• **Disassembly of USB P.C.B..**



Step 3 Release the catches at USB P.C.B..
Step 4 Remove the USB P.C.B..

9.11. Disassembly of Music Port P.C.B.

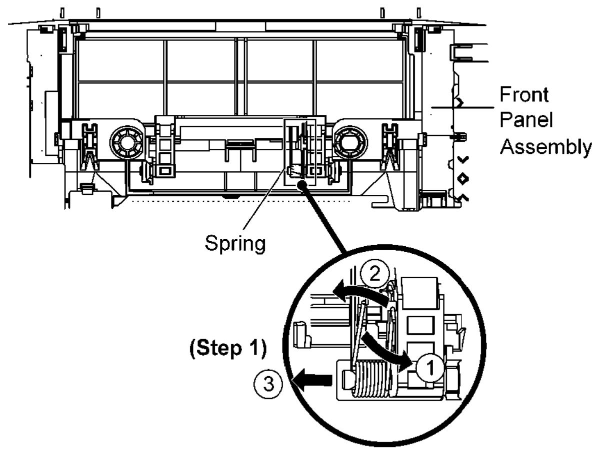
• Follow the (Step 1) to (Step 5) of Item 9.3
• Follow the (Step 1) to (Step 12) of Item 9.7



Step 1 Remove 2 screws at Music Port P.C.B..
Step 2 Release 2 catches.
Step 3 Lift up to remove Music Port P.C.B..

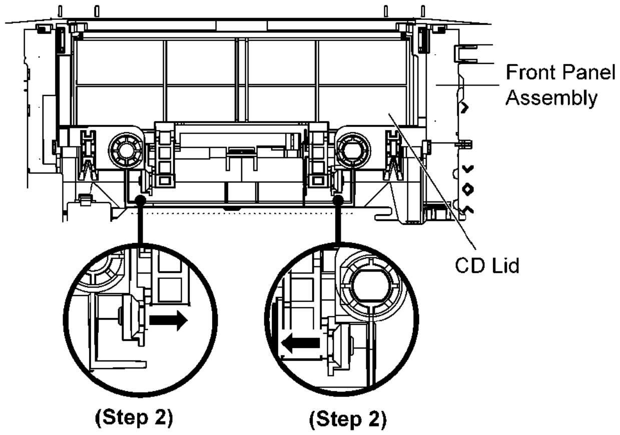
9.12. Disassembly of CD Lid

• Follow the (Step 1) to (Step 5) of Item 9.3
• Follow the (Step 1) to (Step 12) of Item 9.7



Step 1 Remove the spring as arrow shown in order of sequences (1) to (3).

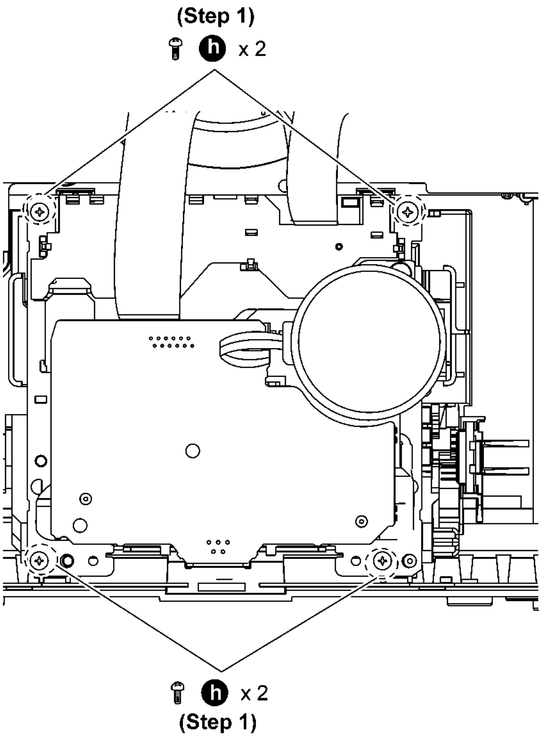
Caution: During assembling, please ensure that the spring is assembly at right position.



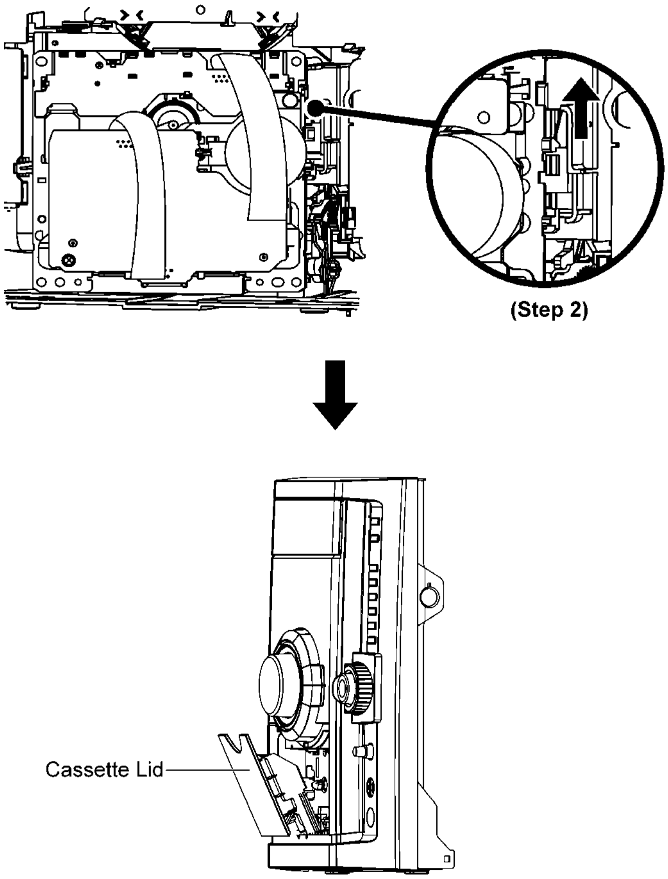
Step 2 Remove CD Lid as arrow shown.

9.13. Disassembly of Deck Mechanism Unit

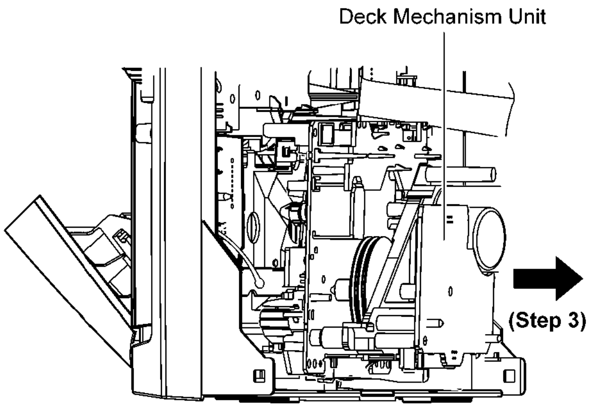
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 12) of Item 9.7



Step 1 Remove 4 screws at Deck Mechanism Unit.



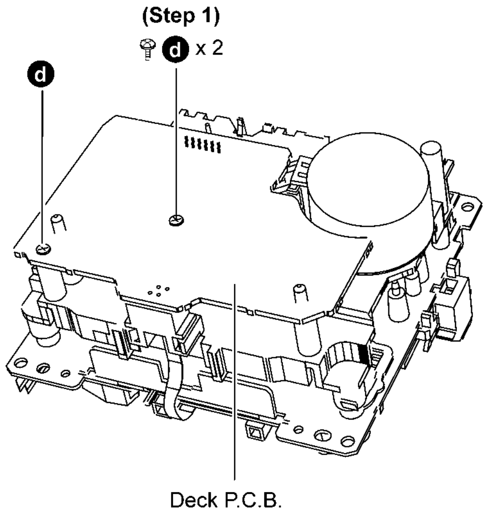
Step 2 Push the lever upward as arrow shown to open the cassette lid.



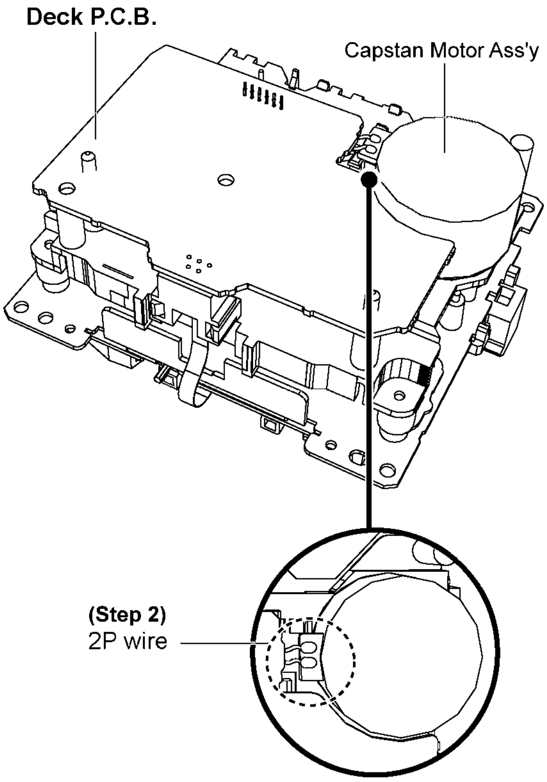
Step 3 Remove Deck Mechanism Unit in the direction of arrow.

9.14. Disassembly of Deck P.C.B.

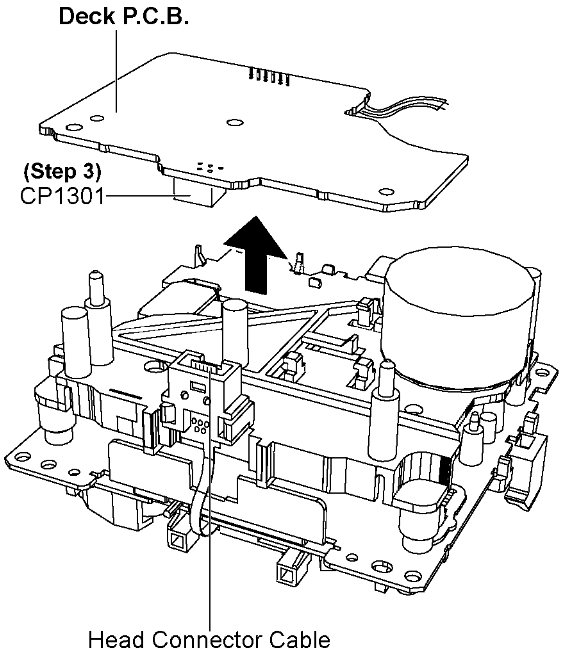
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 12) of Item 9.7
- Follow the (Step 1) to (Step 3) of Item 9.13



Step 1 Remove 2 screws.



Step 2 Desolder 2P wire at the Capstan Motor Ass’y.

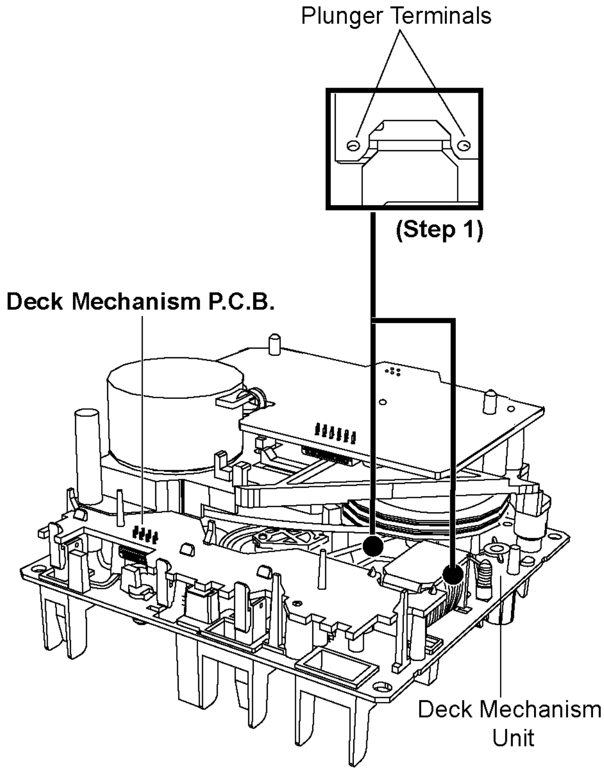


Step 3 Lift up & remove Deck P.C.B..

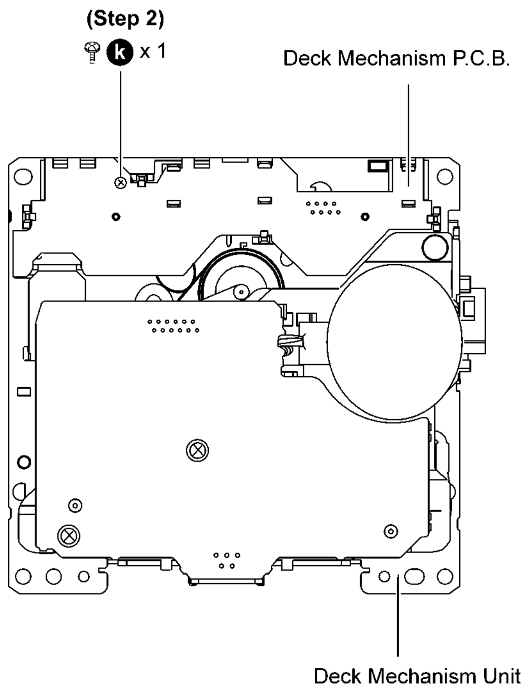
Caution: During assembling, ensure connector (CP1301) at Deck P.C.B. is seated properly & connected to the head connector cable.

9.15. Disassembly of Deck Mechanism P.C.B.

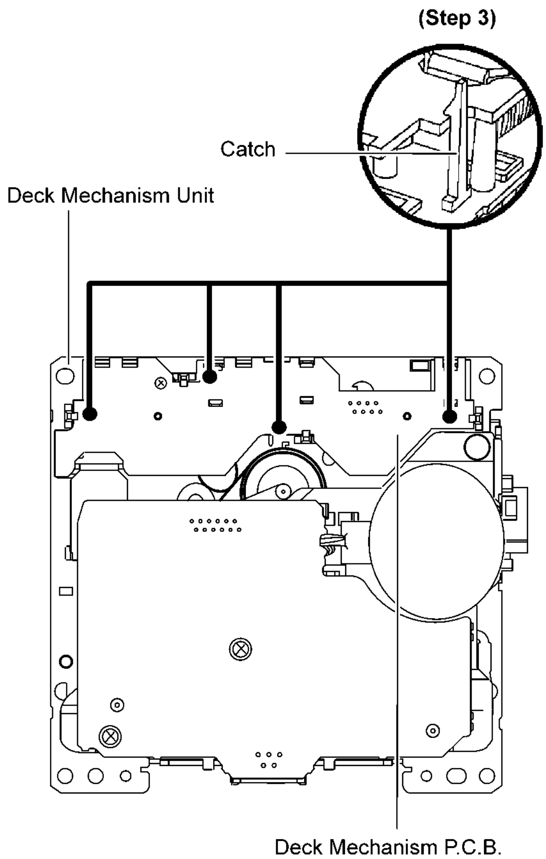
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 12) of Item 9.7
- Follow the (Step 1) to (Step 3) of Item 9.13



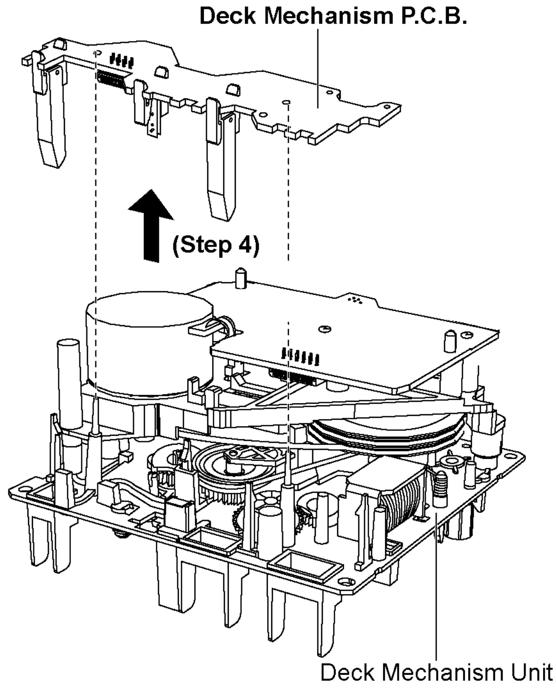
Step 1 Desolder the plunger terminals.



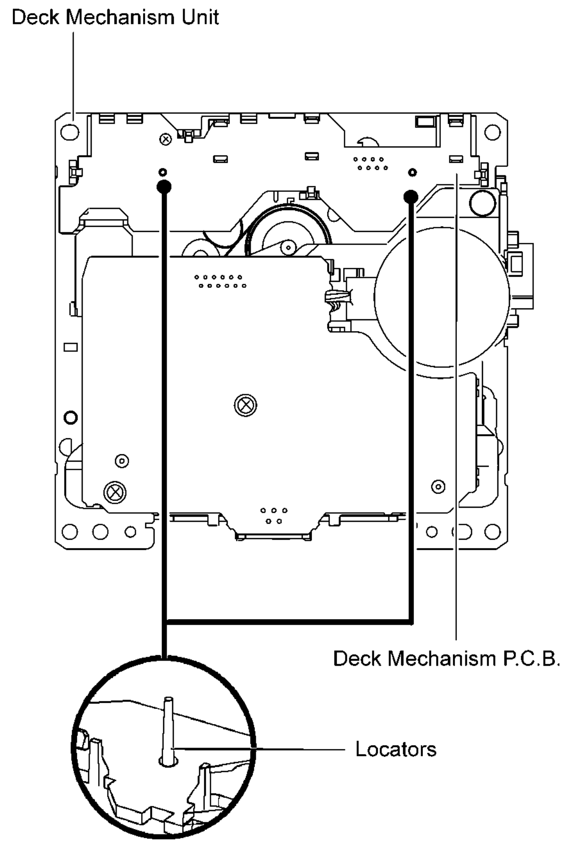
Step 2 Remove 1 screw.



Step 3 Release 4 catches.



Step 4 Remove Deck Mechanism P.C.B..



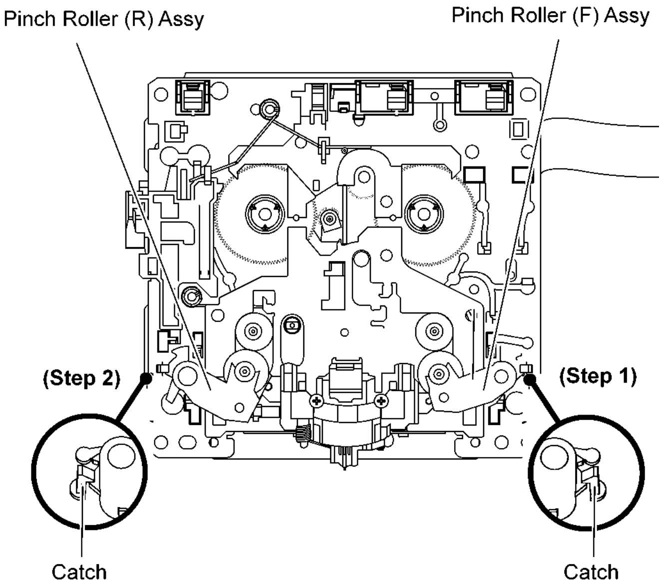
Caution: During assembling, ensure that the Deck Mechanism P.C.B. is seated properly with the guide of the locators.

9.16. Disassembly of Deck Mechanism

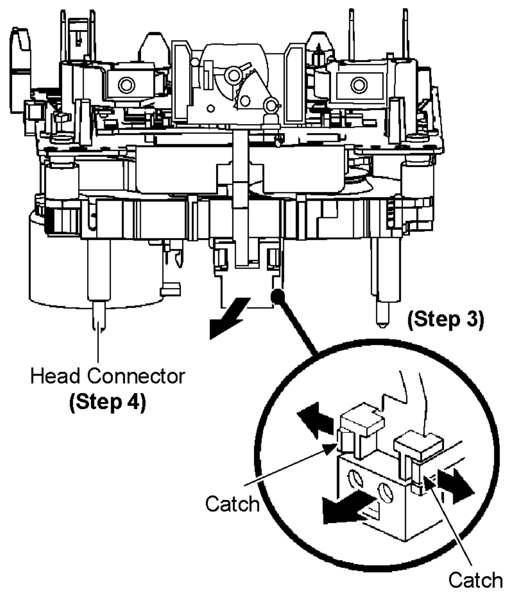
- Follow the (Step 1) to (Step 5) of Item 9.3

• Follow the (Step 1) to (Step 12) of Item 9.7
• Follow the (Step 1) to (Step 3) of Item 9.13
• Follow the (Step 1) to (Step 3) of Item 9.14

9.16.1. Replacement of Pinch Roller Ass'y and Head Block Sub Ass'y

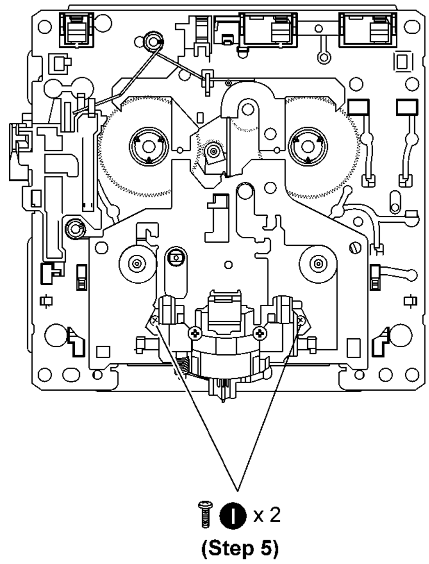


Step 1 Release catch to remove the Pinch Roller (F) Assy.
Step 2 Release catch to remove the Pinch Roller (R) Assy.

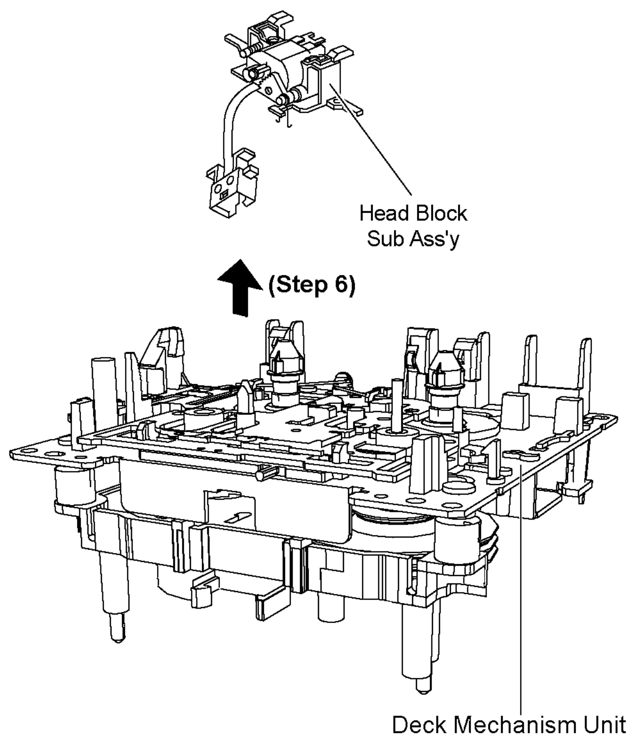


Step 3 Release the catches at the side of head connector.
Step 4 Detach the head connector as arrow shown.

Caution: Avoid exerting strong force as it may damage the FFC.



Step 5 Remove 2 screws.

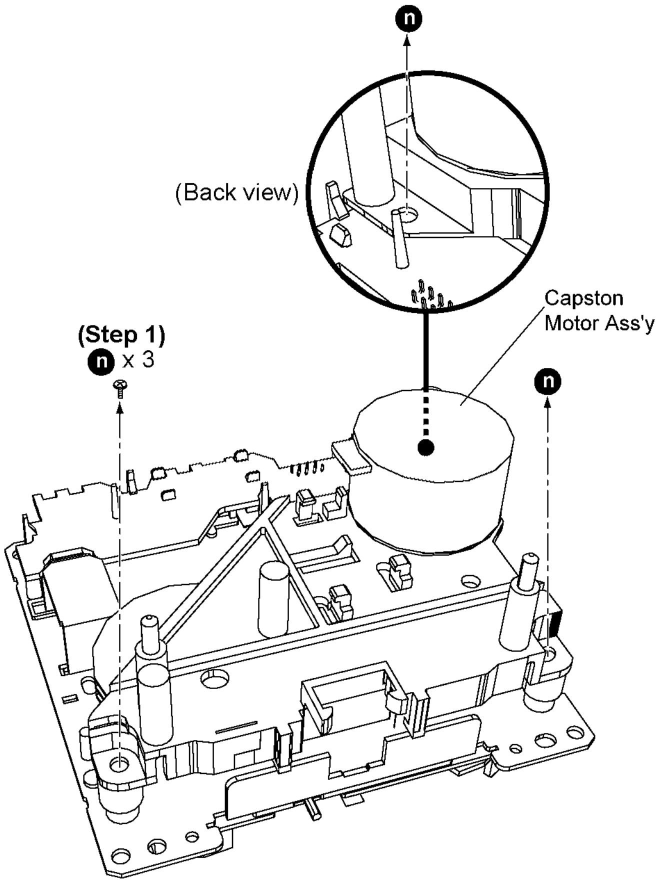


Step 6 Remove Head Block Sub Ass'y as arrow shown.

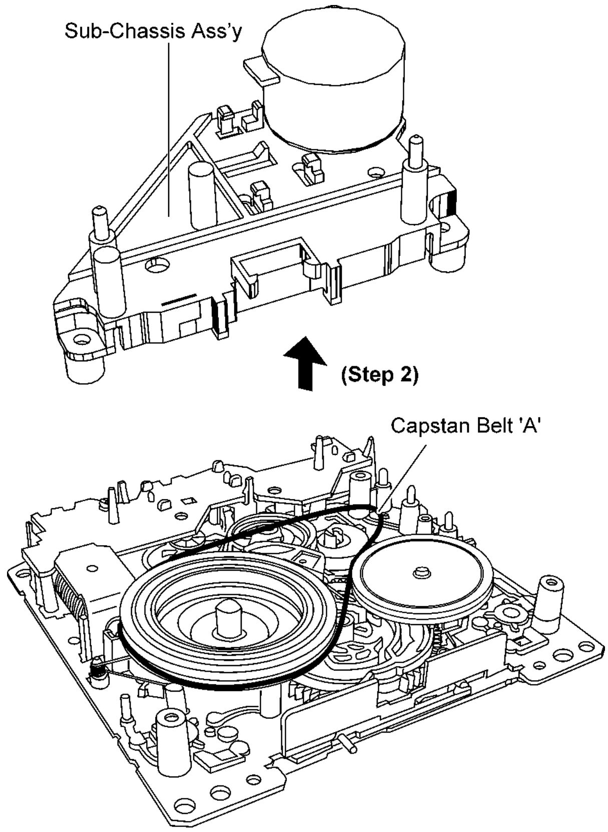
9.16.2. Replacement of Capstan Motor Ass’y and Capstan Belt ‘A’

• Follow the (Step 3) to (Step 4) of item 9.16.1.

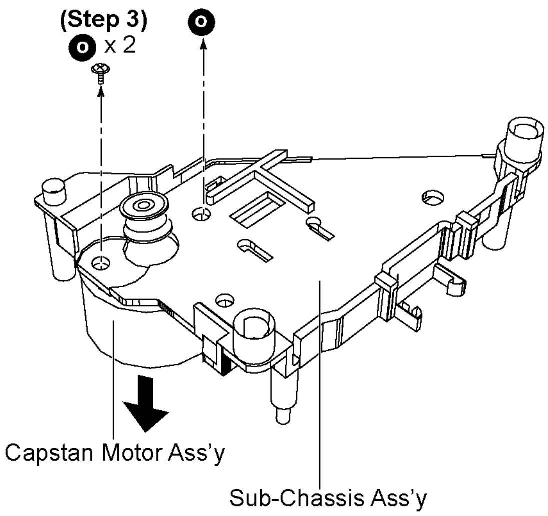
- Disassembly of Capstan Motor Ass’y and Capstan Belt ‘A’



Step 1 Remove 3 screws.

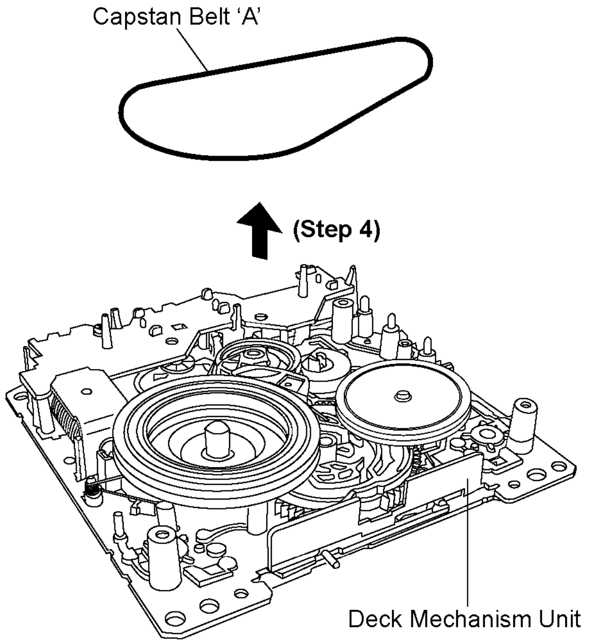


Step 2 Lift up to remove the Sub-Chassis Ass’y.



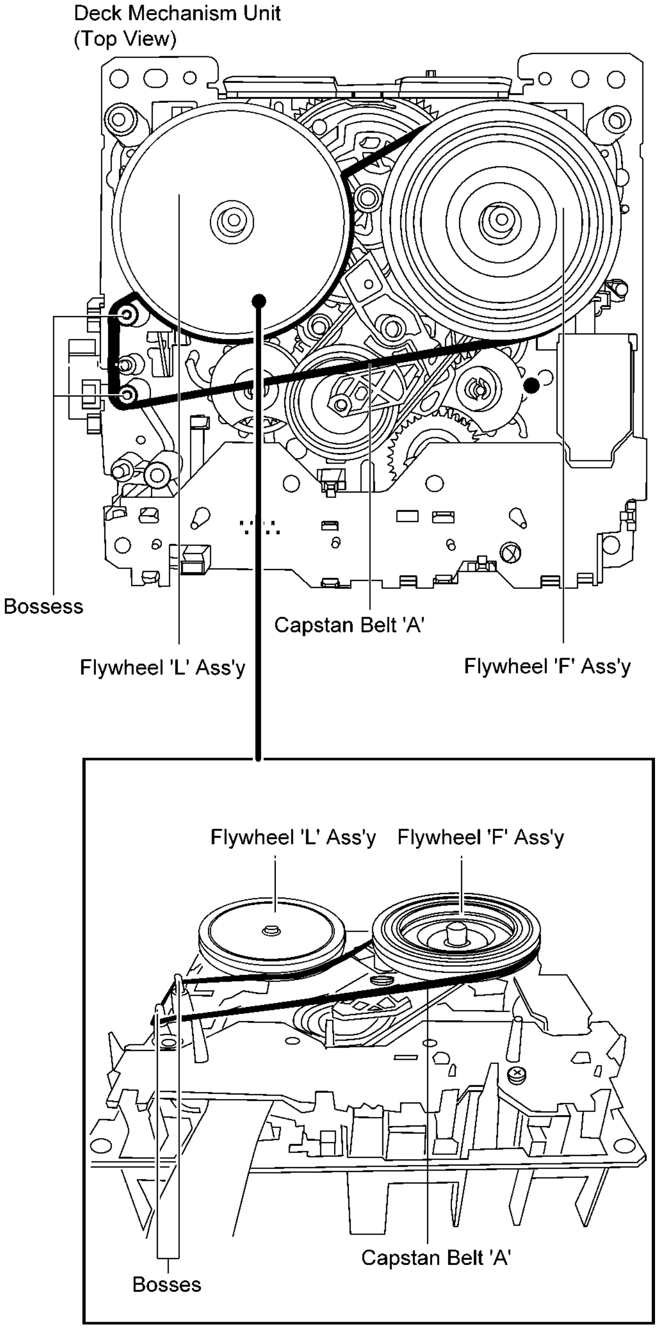
Step 3 Remove 2 screws to remove Capstan Motor Ass’y.

Caution: Support Capstan Motor Ass’y by hand to prevent it from falling during removal and assembly of Capstan Motor Ass’y.

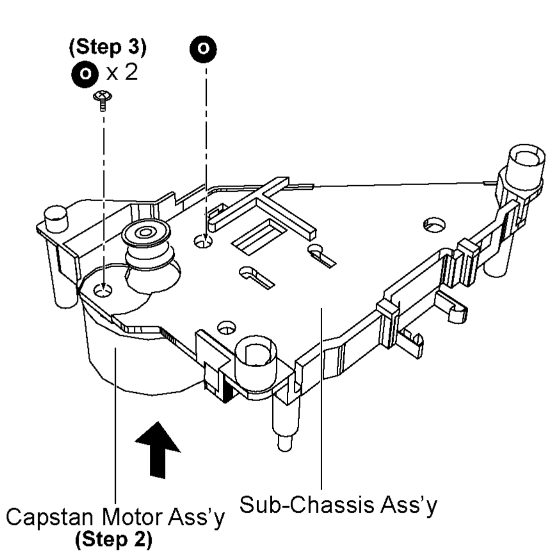


Step 4 Remove Capstan Belt ‘A’.

- Assembly of Capstan Motor Ass’y and Capstan Belt ‘A’



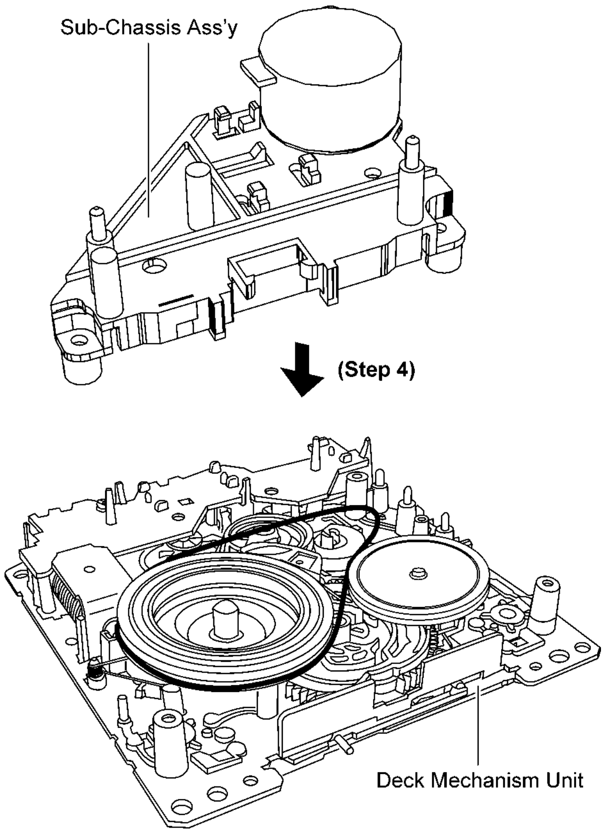
Step 1 Coil Capstan Belt ‘A’ to Flywheel ‘F’ Ass’y, Flywheel ‘L’ and the 2 bosses temporarily as diagram shown.
Caution: Keep Capstan Belt ‘A’ away from grease during assembly of Capstan Belt ‘A’.



Step 2 Fit the Capstan Motor Ass'y to the Sub-Chassis Ass'y.

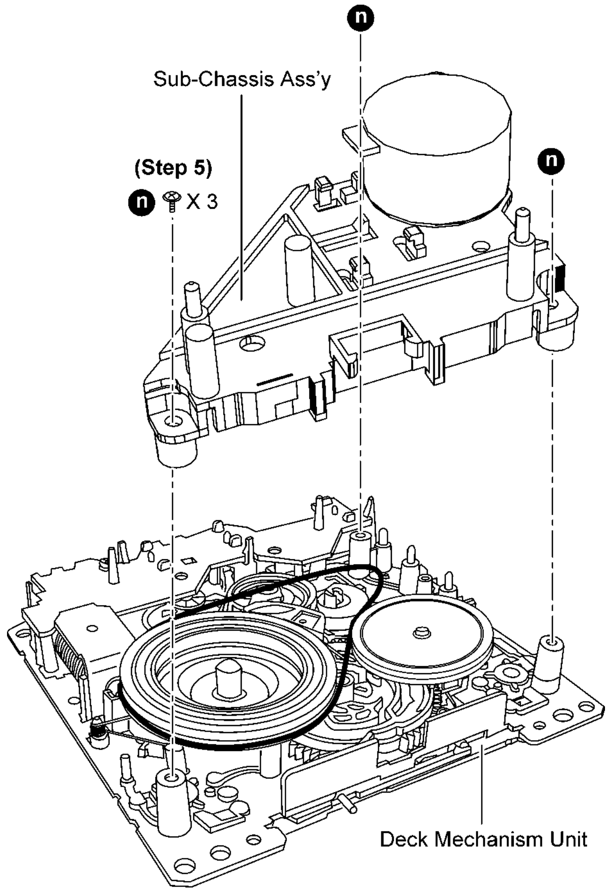
Caution: Ensure it seats properly.

Step 3 Fix the Capstan Motor Ass'y to the Sub-Chassis Ass'y by 2 screws.

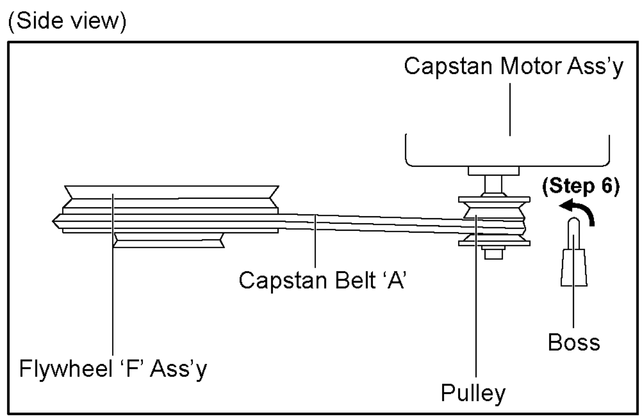


Step 4 Install the Sub-Chassis Ass'y to the Deck Mechanism Unit.

Caution: Ensure the Sub-Chassis Ass'y seats properly on the bosses.



Step 5 Fix 3 screws.

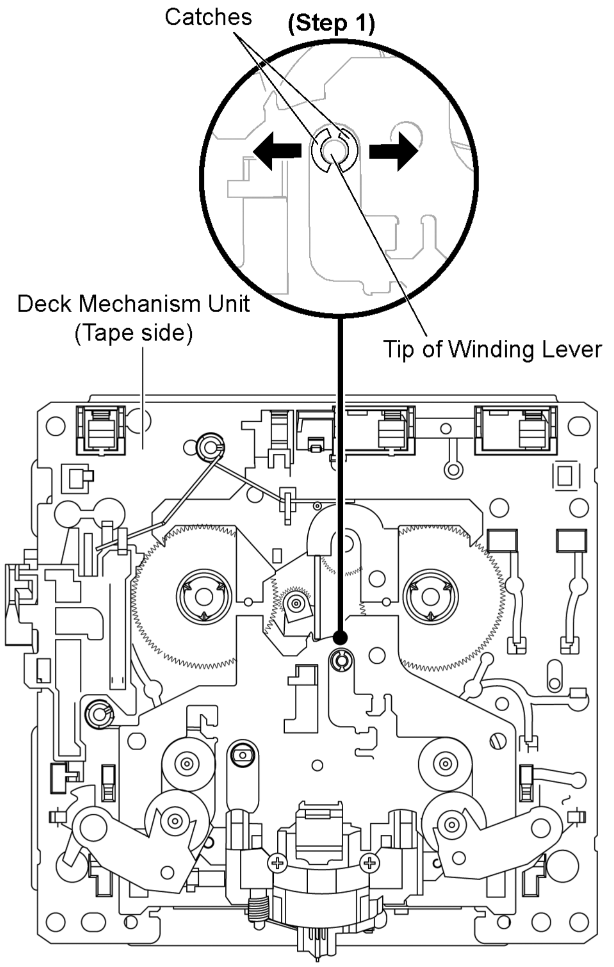


Step 6 Release Capstan Belt 'A' to the pulley of Capstan Motor Ass'y as diagram shown.

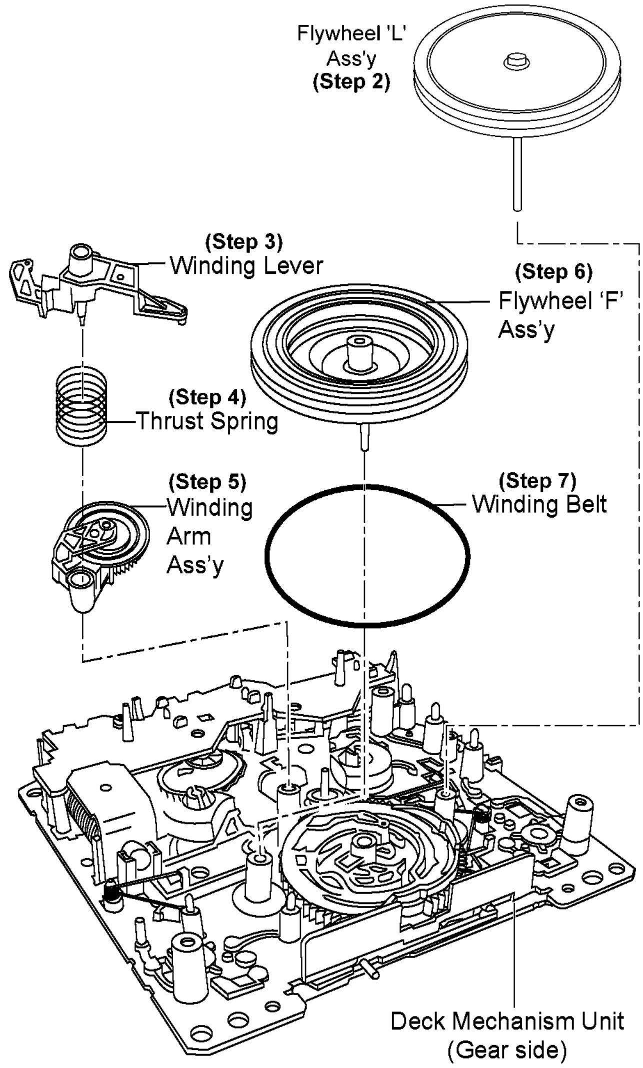
9.16.3. Replacement of Winding Belt

- Follow the (Step 3) to (Step 4) of item 9.16.1.
- Follow the (Step 1) to (Step 4) of item 9.16.2.

- Disassembly of Winding Belt

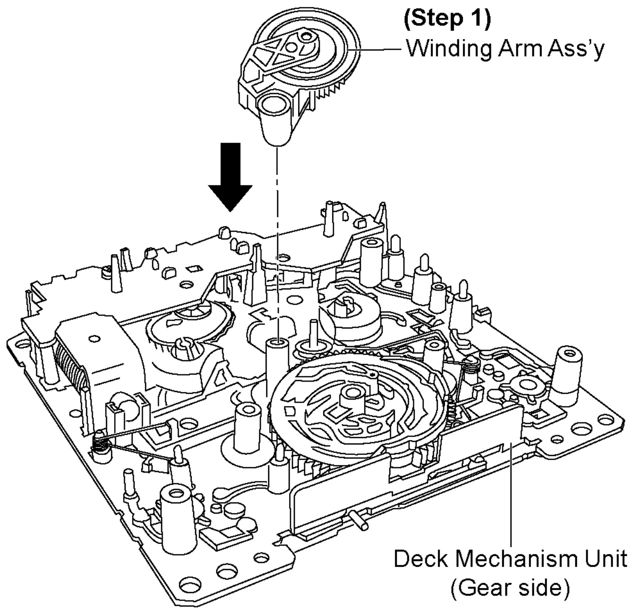


Step 1 Release 2 catches and press the tip of the Winding Lever downwards.

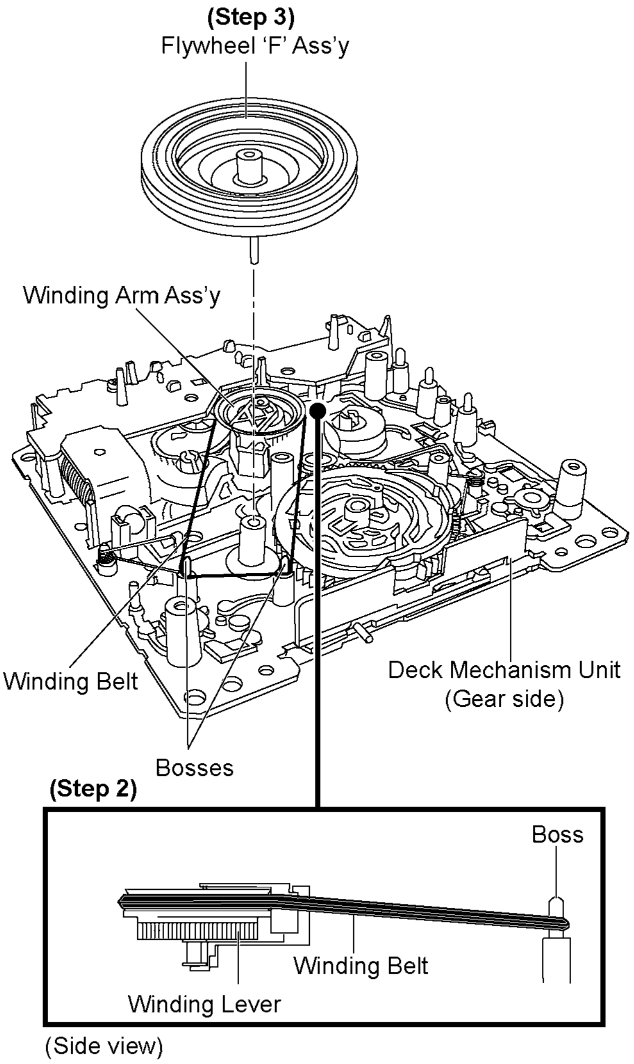


Step 2 Remove Flywheel 'L' Ass'y.
Step 3 Remove the Winding Lever.
Step 4 Remove the Thrust Spring.
Step 5 Remove the Winding Arm Ass'y.
Step 6 Remove the Flywheel 'F' Ass'y.
Step 7 Remove the Winding Belt.
Caution: Keep Thrust Spring in a safe place for assembling purpose.

- Assembly of Winding Belt

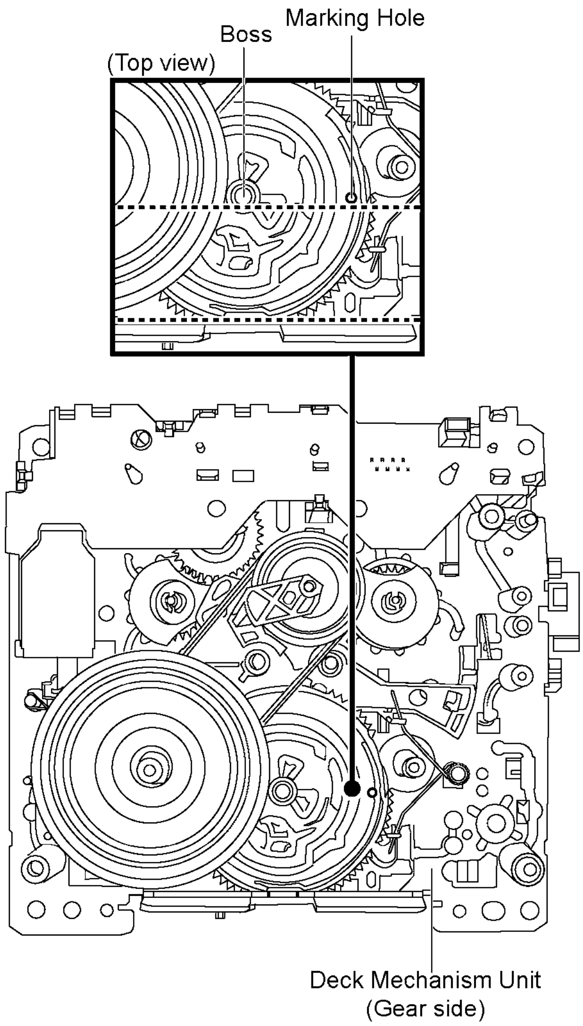


Step 1 Install the Winding Arm Ass’y.

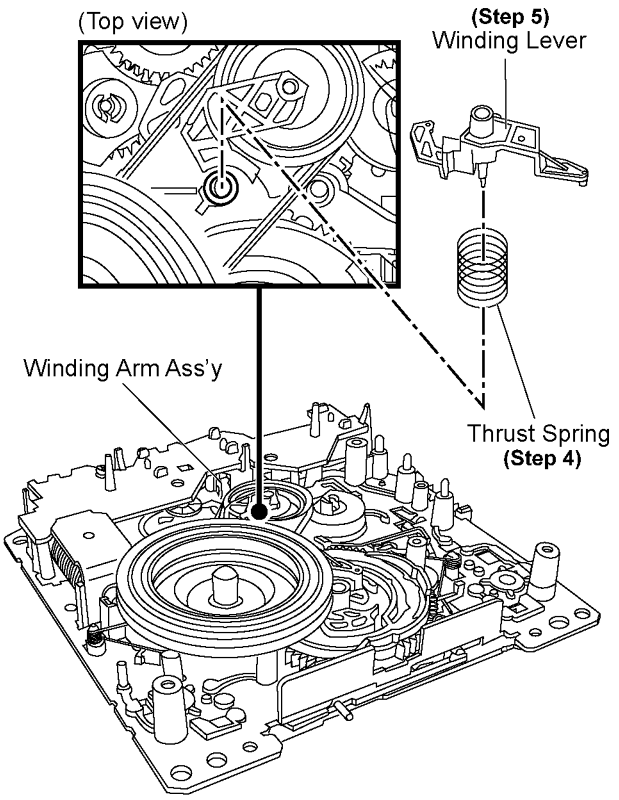


Step 2 Coil the Winding Belt to the Winding Arm Ass’y and the 2 bosses temporarily as diagram shown.

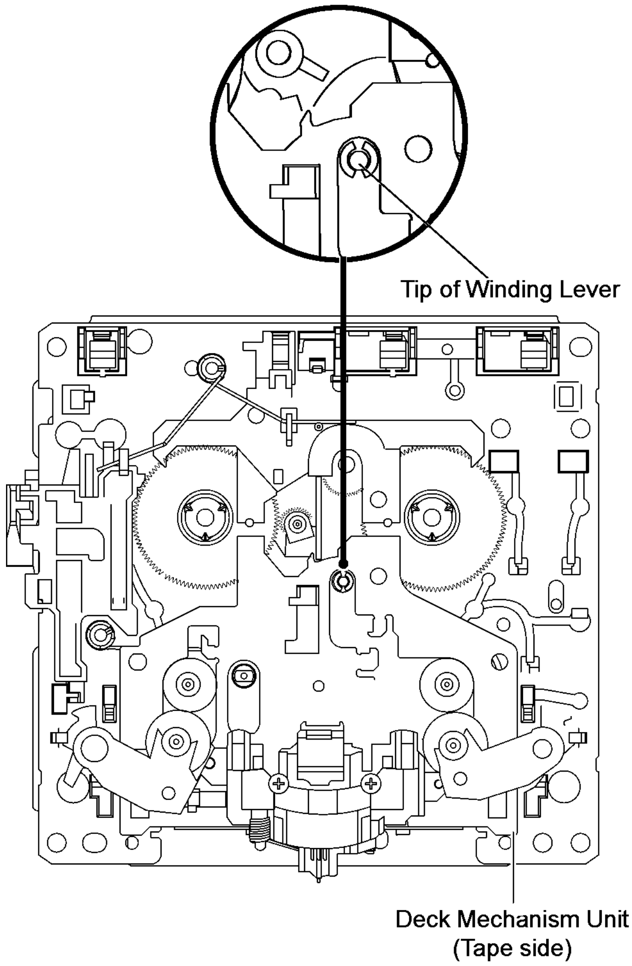
Step 3 Install Flywheel ‘F’ Ass’y.



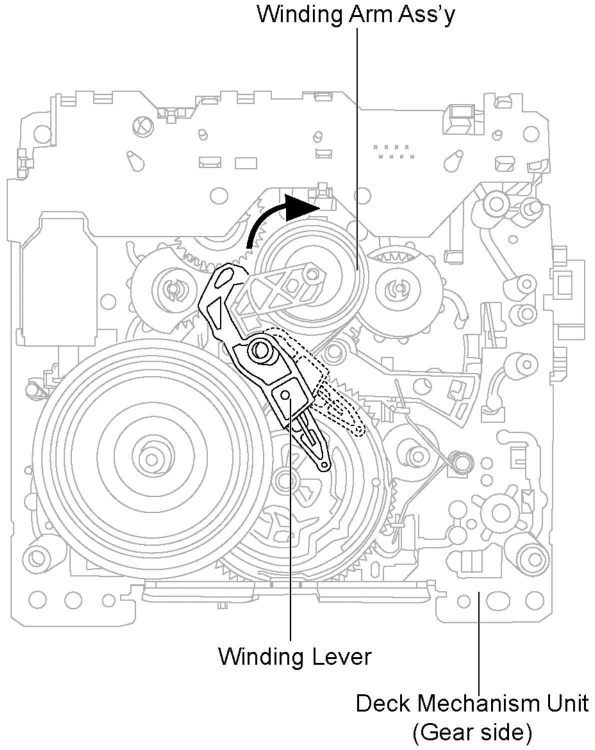
Caution: Ensure that the boss and the marking hole of the Main Gear are positioned such that they form a horizontal line parallel to the Deck Mechanism Unit.



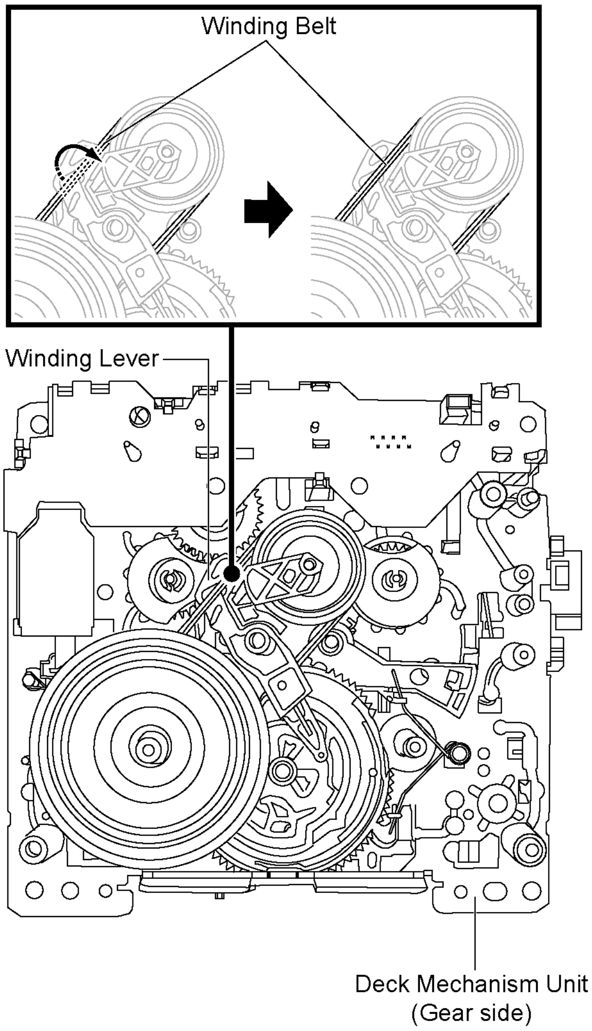
Step 4 Install the Thrust Spring.
Step 5 Install the Winding Lever.



Caution 2: Ensure that the Winding Lever is firmly inserted and properly catched on the tape side as diagram shown.

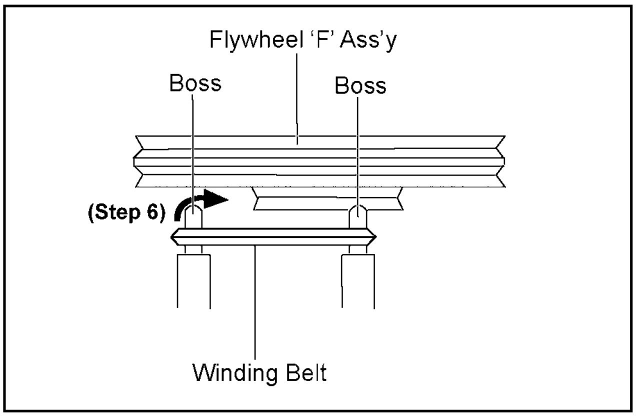


Caution 1: Ensure that the Winding Arm Ass'y is pulled towards to the right as arrow shown to enable full insertion of the Winding Lever. The Winding Lever must be seated on the Main Gear as diagram shown.

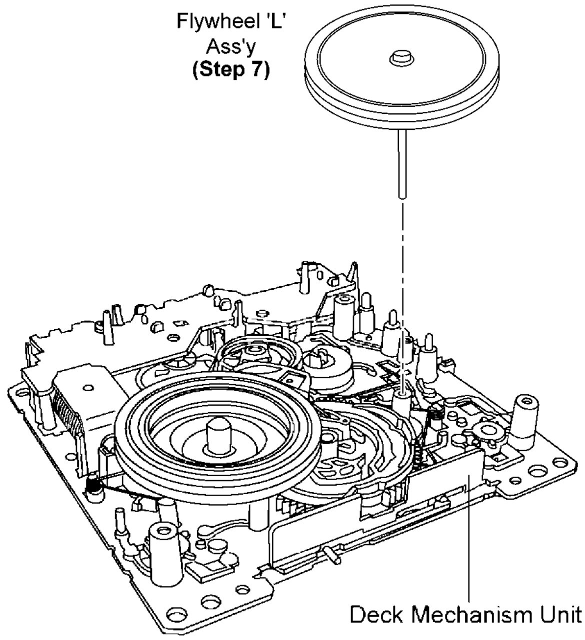


Caution 3: Ensure that the Winding Belt is above the Winding Lever as diagram shown.

(Side view)



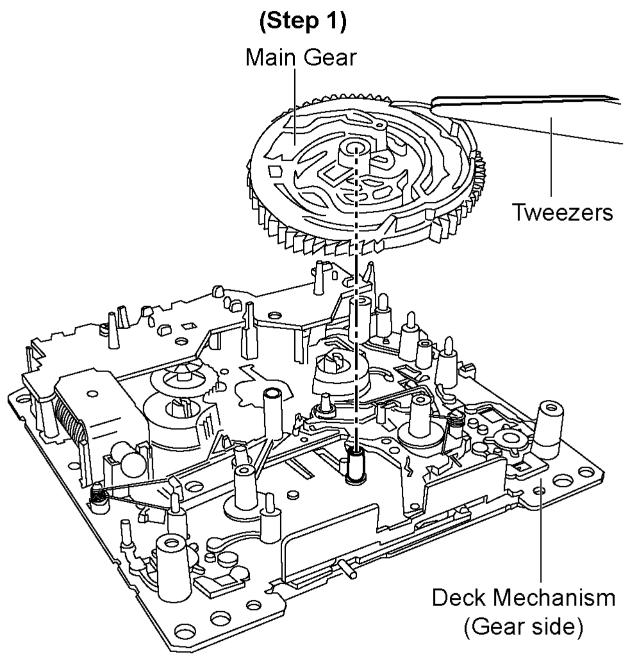
Step 6 Release the Winding Belt on Flywheel ‘F’ Ass’y as diagram shown.



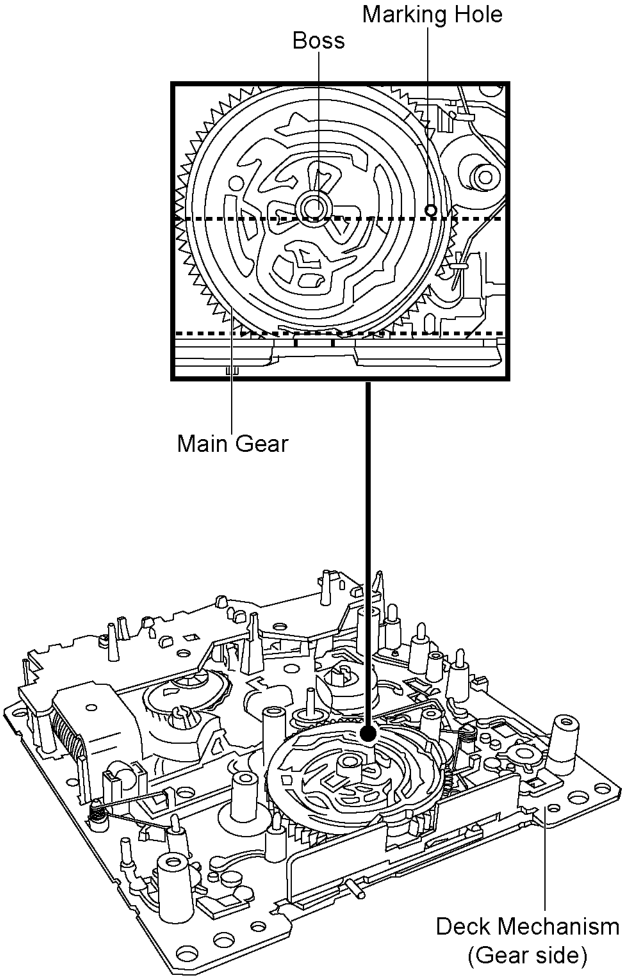
Step 7 Install Flywheel ‘L’ Ass’y.

9.16.4. Disassembly of Main Gear

- Follow the (Step 3) to (Step 4) of item 9.16.1.
- Follow the (Step 1) to (Step 4) of item 9.16.2.
- Follow the (Step 1) to (Step 6) of item 9.16.3.



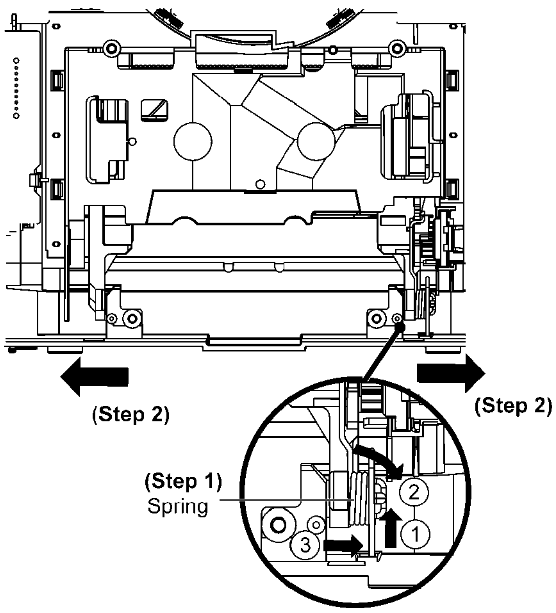
Step 1 : Remove Main Gear using tweezers.



Caution : Ensure that the boss and the marking hole of the Main Gear are positioned such that they form a horizontal line parallel to the Deck Mechanism during assembly of the Main Gear.

9.17. Disassembly of Cassette Lid

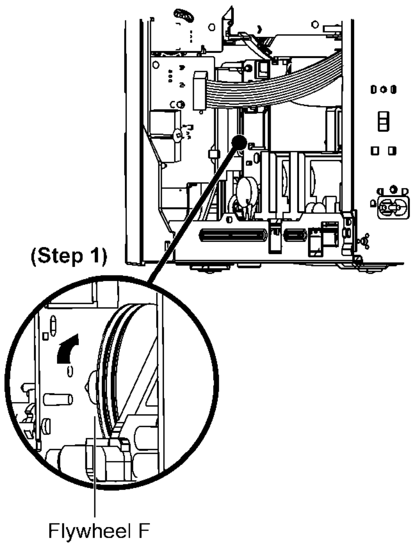
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 12) of Item 9.7
- Follow the (Step 1) to (Step 3) of Item 9.13



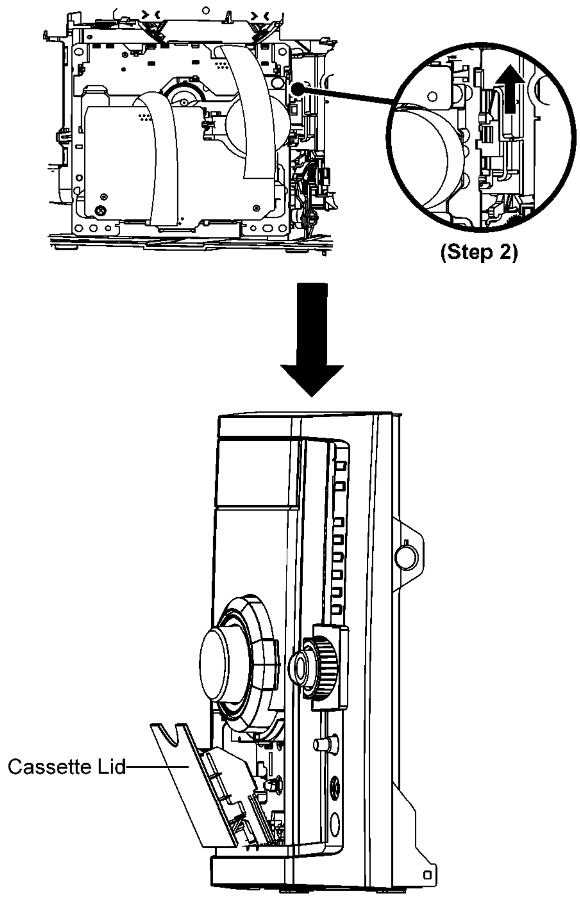
Step 1 Remove the spring.
Step 2 Push the cassette lid in the direction of arrows.

9.18. Rectification for Tape Jam Problem

- Follow the (Step 1) to (Step 5) of Item 9.3



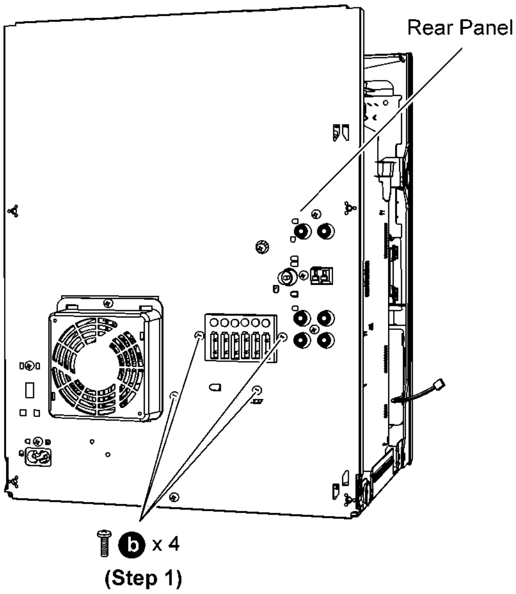
Step 1 Rotate the flywheel F in the direction of the arrow to remove it.



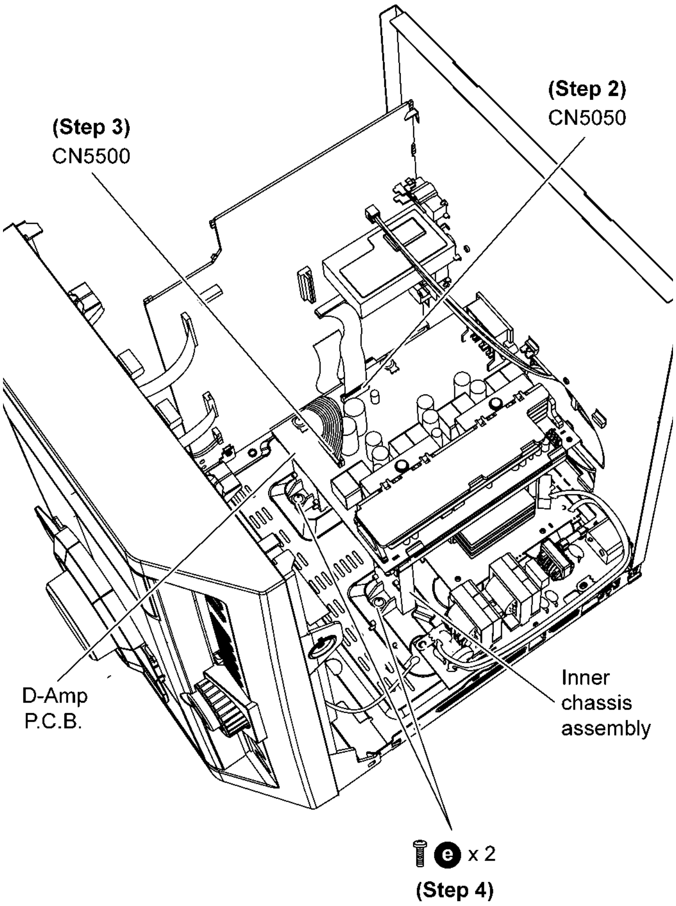
Step 2 Push the lever upward and open the cassette lid.
Note: Follow Disassembly of Cassette Lid to remove the cassette tape.

9.19. Disassembly of D-Amp P.C.B.

- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 6) of Item 9.4



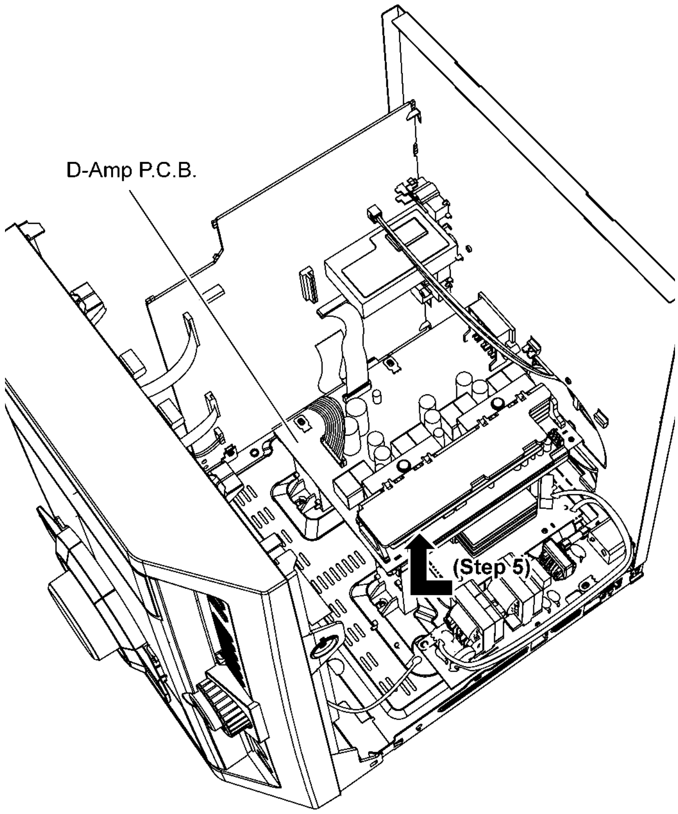
Step 1 Remove 4 screws at the rear panel.



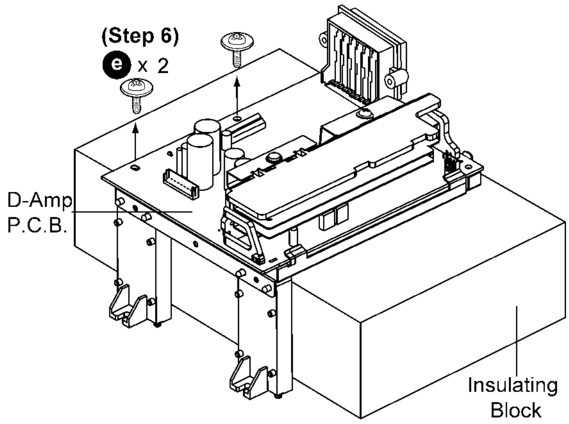
Step 2 Detach 17P FFC at the connector (CN5050) on D-Amp P.C.B..

Step 3 Detach 8P cable at the connector (CN5500) on D-Amp P.C.B..

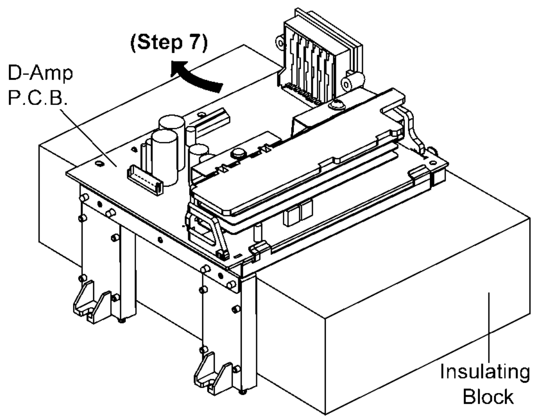
Step 4 Remove 2 screws at D-Amp P.C.B. Inner chassis assembly.



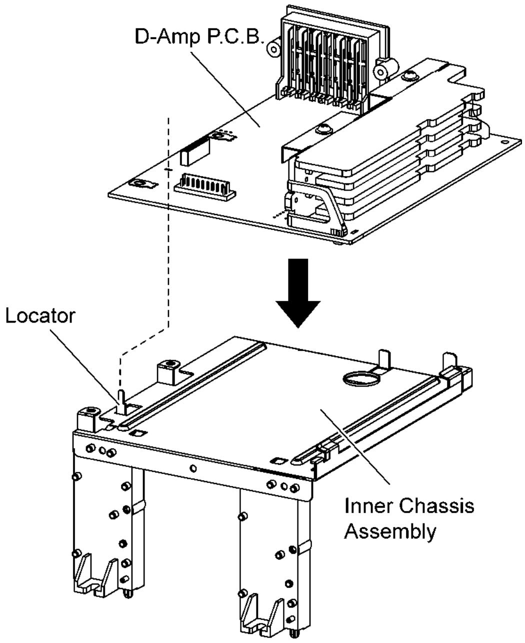
Step 5 Lift up the D-Amp P.C.B. together with the inner chassis assembly as arrow shown.



Step 6 Remove 2 screws on D-Amp P.C.B..



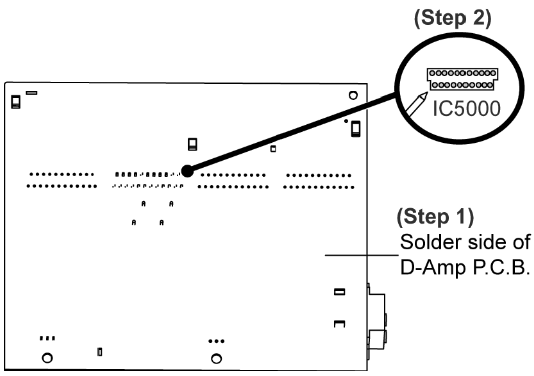
Step 7 Lift up D-Amp P.C.B. as arrow shown.



Caution: During assembling, ensure the D-Amp P.C.B. is seated properly on the locator of the Inner chassis assembly.

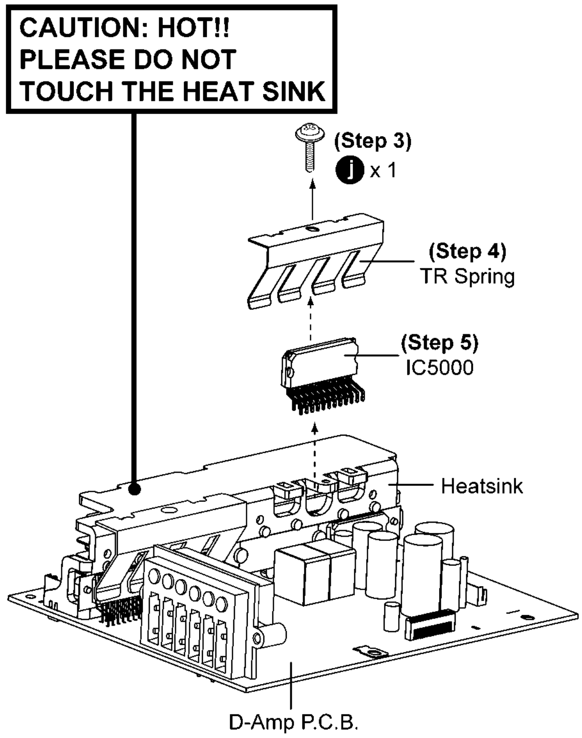
9.20. Replacement of Audio Digital Power Amp IC (IC5000)

- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 7) of Item 9.4
- Follow the (Step 1) to (Step 7) of Item 9.19



Step 1 Flip over D-Amp P.C.B..

Step 2 Desolder pins of the Audio Digital Power Amp IC (IC5000) on the solder side of D-Amp P.C.B..



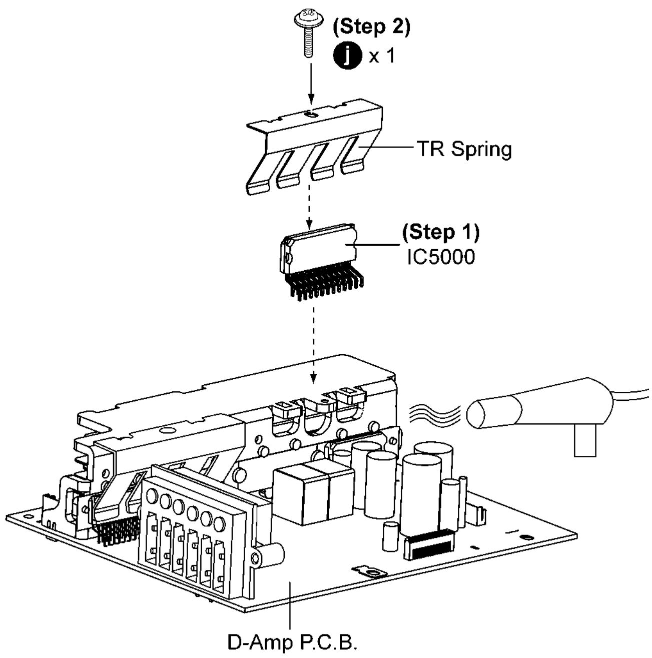
Step 3 Remove 1 screw.

Step 4 Remove TR Spring in the direction of arrow shown.

Step 5 Remove Audio Digital Power Amp IC (IC5000).

Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.20.1. Assembly of Audio Digital Power Amp IC (IC5000)



Step 1 Mount the Audio Digital Power Amp IC (IC5000) on to D-Amp P.C.B..

Step 2 Screw back TR Spring to hold the Audio Digital Power Amp IC (IC5000) onto the Heatsink Power Unit.

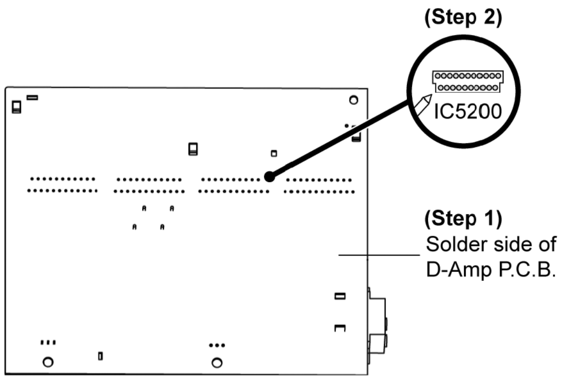
Step 3 Solder the pins of Audio Digital Power Amp IC.

Step 4 Use a blower to remove the minute particles after the screwing of TR Spring.

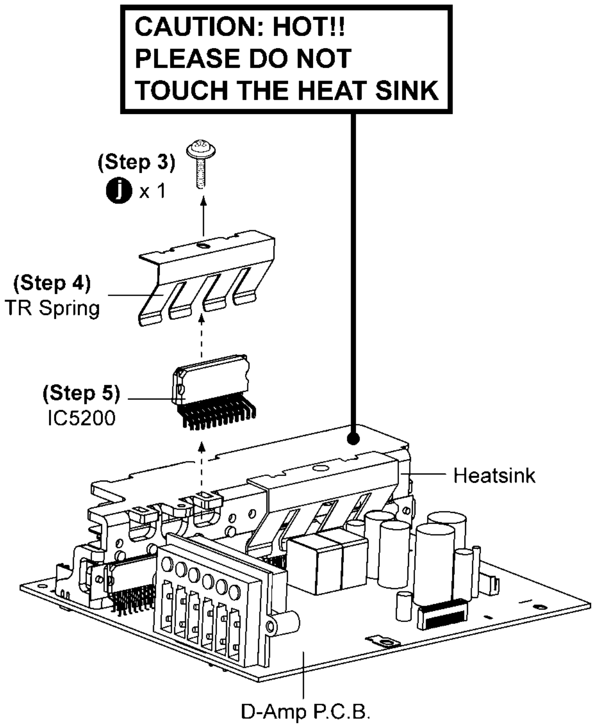
Caution: Ensure pins of the Audio Digital Power Amp IC (IC5000) are properly seated and soldered on D-Amp P.C.B..

9.21. Replacement of Audio Digital Power Amp IC (IC5200)

- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 7) of Item 9.4
- Follow the (Step 1) to (Step 7) of Item 9.19



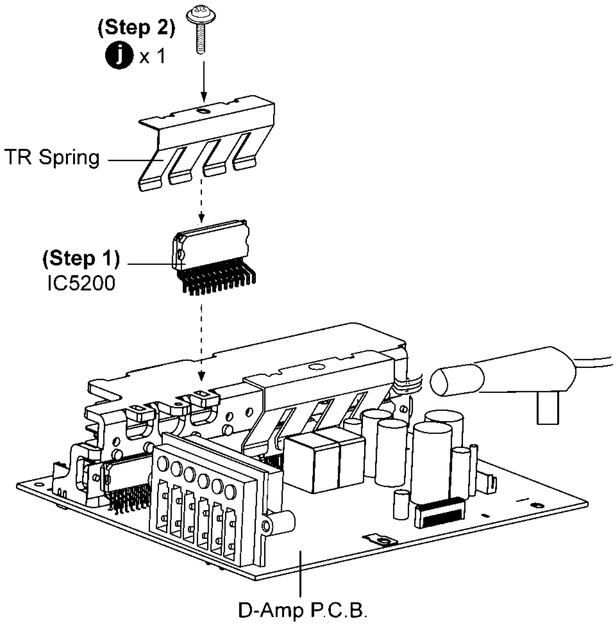
Step 1 Flip over D-Amp P.C.B..
Step 2 Desolder pins of the Audio Digital Power Amp IC (IC5200) on the solder side of D-Amp P.C.B..



Step 3 Remove 1 screw.
Step 4 Remove TR Spring in the direction of arrow shown.
Step 5 Remove Audio Digital Power Amp IC (IC5200) from the heat sink unit.

Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.21.1. Assembly of Audio Digital Power Amp IC (IC5200)

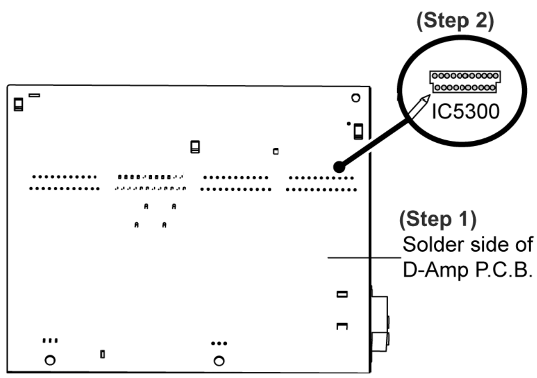


Step 1 Mount the Audio Digital Power Amp IC (IC5200) on to D-Amp P.C.B..
Step 2 Screw back TR Spring to hold the Audio Digital Power Amp IC (IC5200) onto the Heatsink Power Unit.
Step 3 Solder the pins of Audio Digital Power Amp IC.
Step 4 Use a blower to remove the minute particles after the screwing of TR Spring.

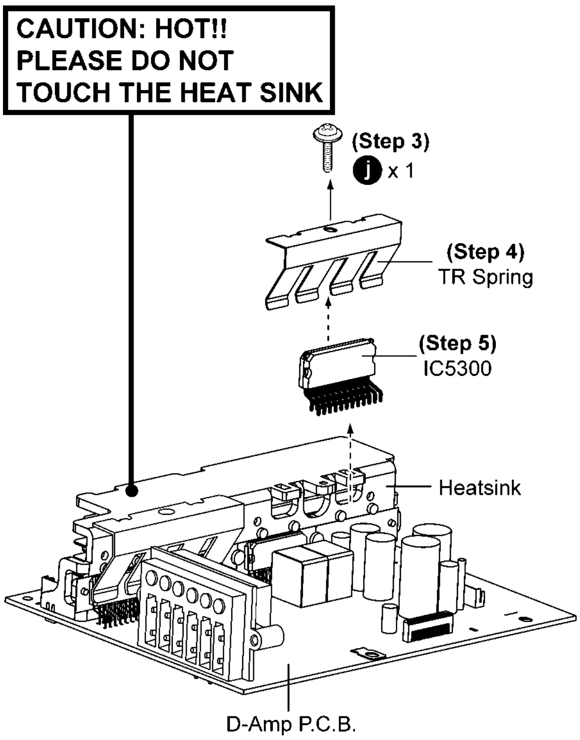
Caution: Ensure pins of the Audio Digital Power Amp IC (IC5200) are properly seated and soldered on D-Amp P.C.B..

9.22. Replacement of Audio Digital Power Amp IC (IC5300)

- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 7) of Item 9.4
- Follow the (Step 1) to (Step 7) of Item 9.19

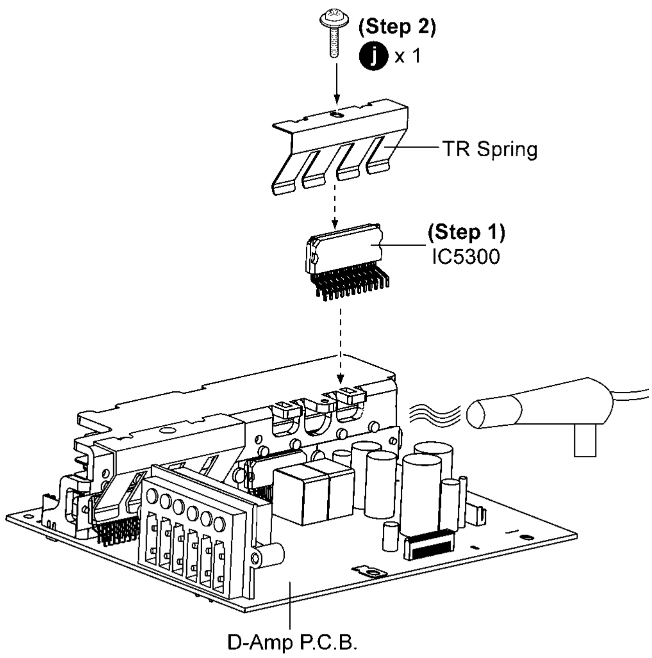


Step 1 Flip over D-Amp P.C.B..
Step 2 Desolder pins of the Audio Digital Power Amp IC (IC5300) on the solder side of D-Amp P.C.B..



Step 3 Remove 1 screw.
Step 4 Remove TR Spring in the direction of arrow shown.
Step 5 Remove Audio Digital Power Amp IC (IC5300).
Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.22.1. Assembly of Audio Digital Power Amp IC (IC5300)

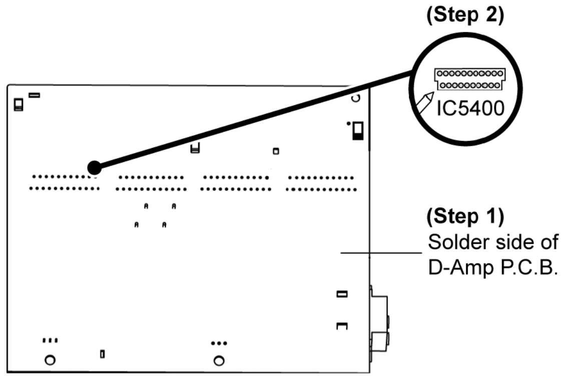


Step 1 Mount the Audio Digital Power Amp IC (IC5300) on to D-Amp P.C.B..
Step 2 Screw back TR Spring to hold the Audio Digital Power Amp IC (IC5300) onto the Heatsink Power Unit.
Step 3 Solder the pins of Audio Digital Power Amp IC.
Step 4 Use a blower to remove the minute particles after the screwing of TR Spring.

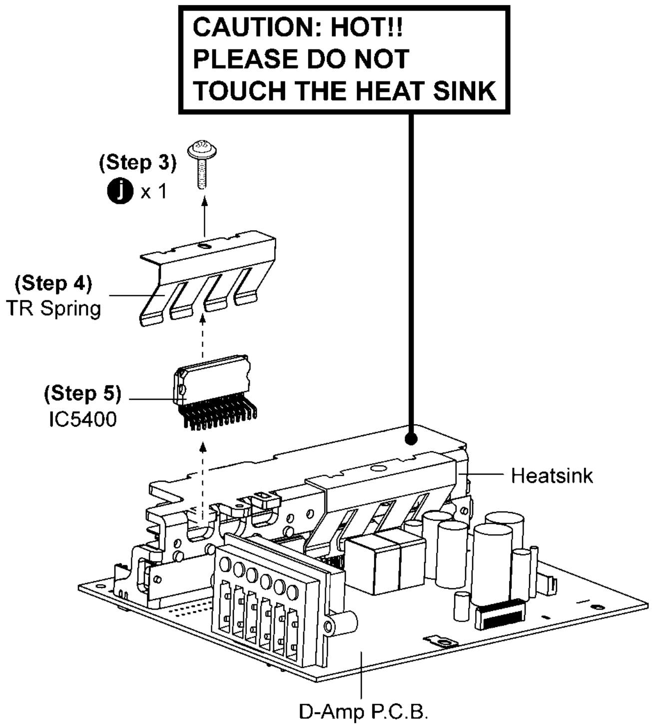
Caution: Ensure pins of the Audio Digital Power Amp IC (IC5300) are properly seated and soldered on D-Amp P.C.B..

9.23. Replacement of Audio Digital Power Amp IC (IC5400)

- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 7) of Item 9.4
- Follow the (Step 1) to (Step 7) of Item 9.19



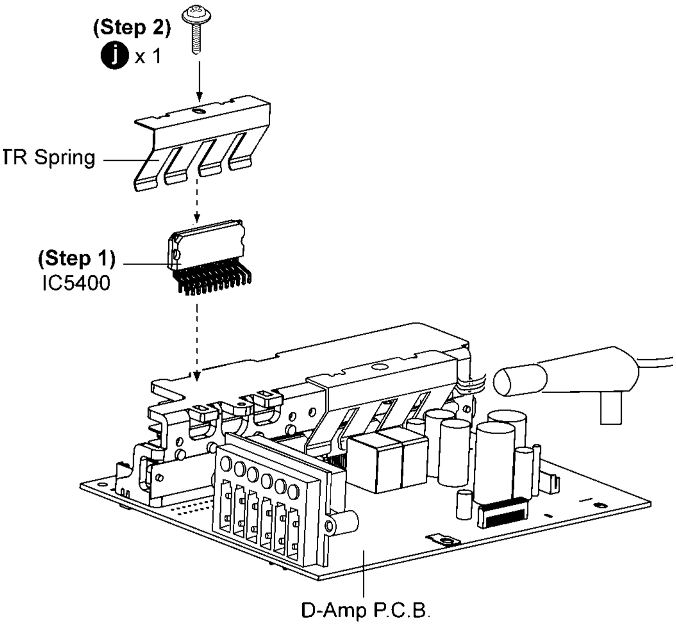
Step 1 Flip over D-Amp P.C.B..
Step 2 Desolder pins of the Audio Digital Power Amp IC (IC5400) on the solder side of D-Amp P.C.B..



Step 3 Remove 1 screw.
Step 4 Remove TR Spring in the direction of arrow shown.
Step 5 Remove Audio Digital Power Amp IC (IC5400) from the heat sink unit.

Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.23.1. Assembly of Audio Digital Power Amp IC (IC5400)

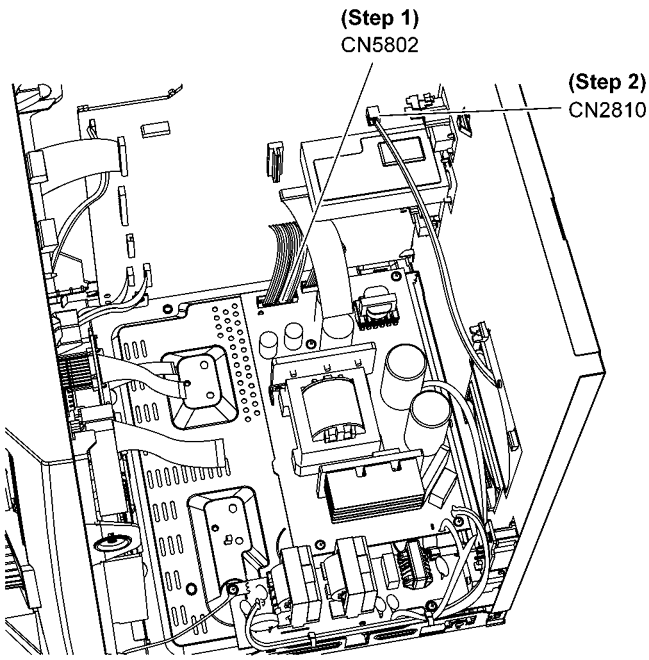


Step 1 Mount the Audio Digital Power Amp IC (IC5400) on to D-Amp P.C.B..
Step 2 Screw back TR Spring to hold the Audio Digital Power Amp IC (IC5400) onto the Heatsink Power Unit.
Step 3 Solder the pins of Audio Digital Power Amp IC.
Step 4 Use a blower to remove the minute particles after the screwing of TR Spring.

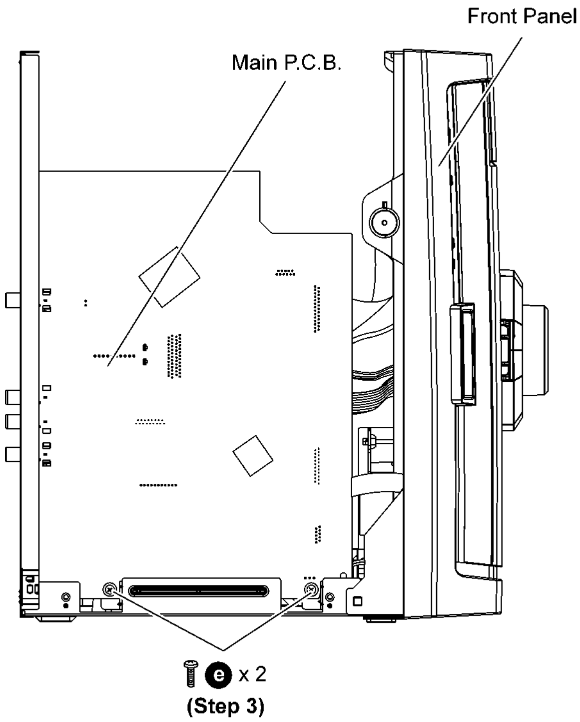
Caution: Ensure pins of the Audio Digital Power Amp IC (IC5400) are properly seated and soldered on D-Amp P.C.B..

9.24. Disassembly of Main P.C.B.

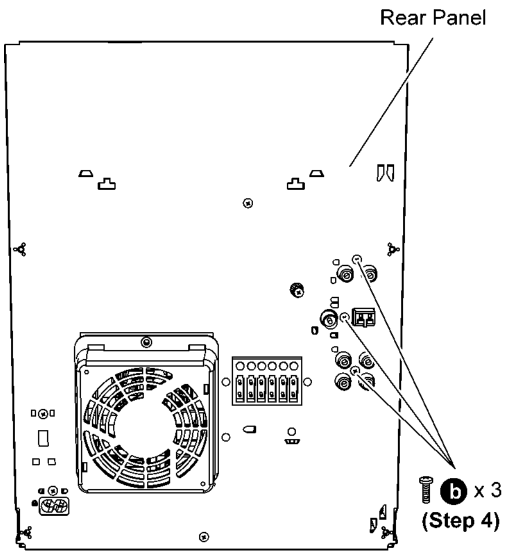
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 7) of Item 9.4
- Follow the (Step 1) to (Step 7) of Item 9.7
- Follow the (Step 1) to (Step 5) of Item 9.19



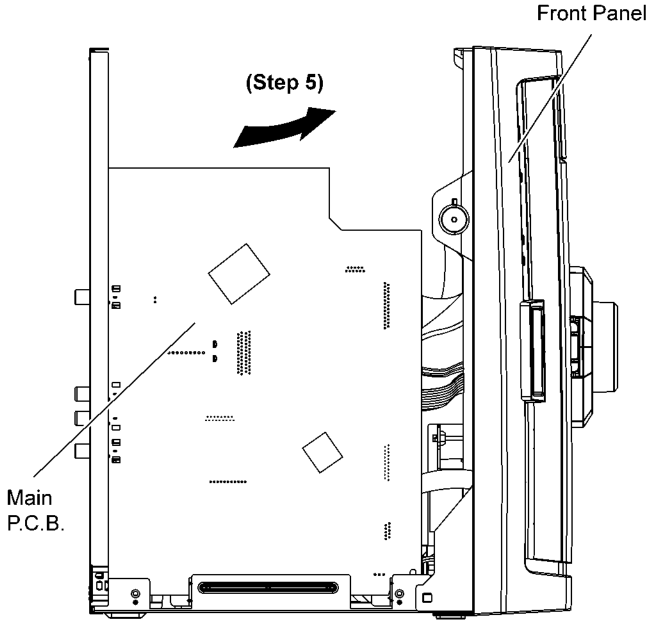
Step 1 Detach 11P cable at connector (CN5802) on SMPS P.C.B..
Step 2 Detach 2P cable at connector (CN2810) on SMPS P.C.B..



Step 3 Remove 2 screws on Main P.C.B..



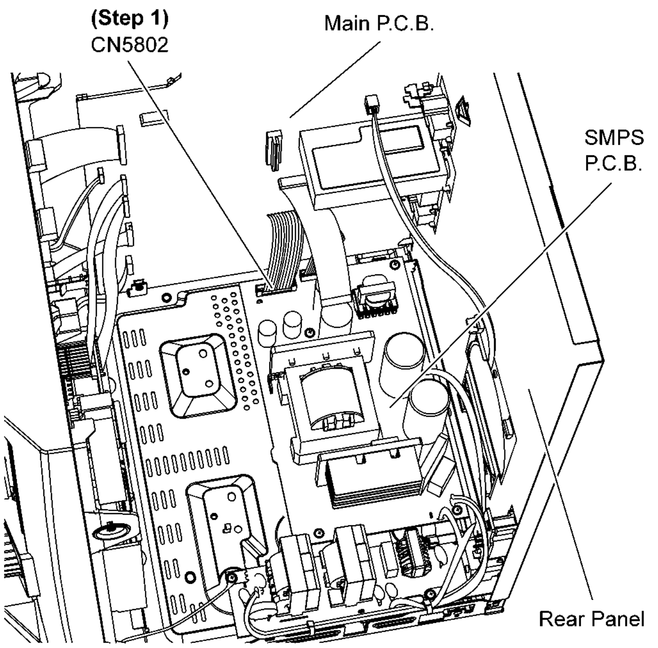
Step 4 Remove 3 screws at rear panel.



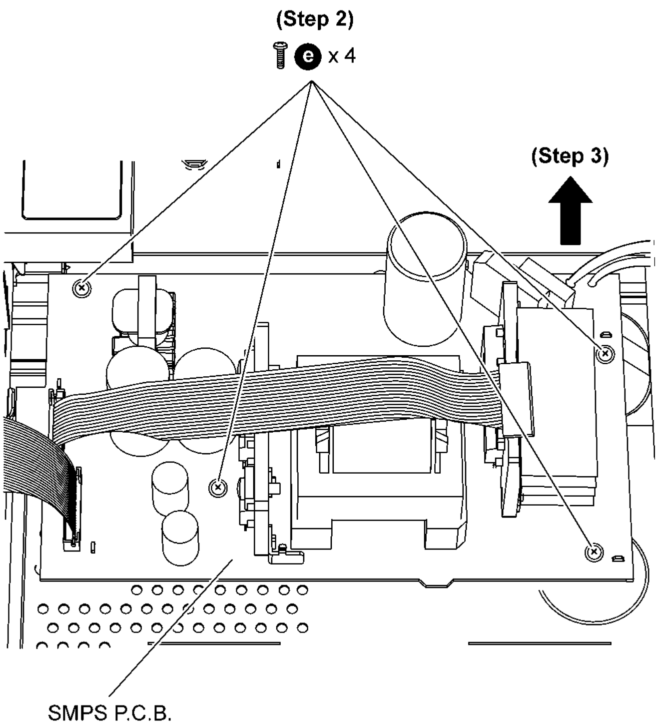
Step 5 Remove Main P.C.B. according to the arrow shown.

9.25. Disassembly of SMPS P.C.B.

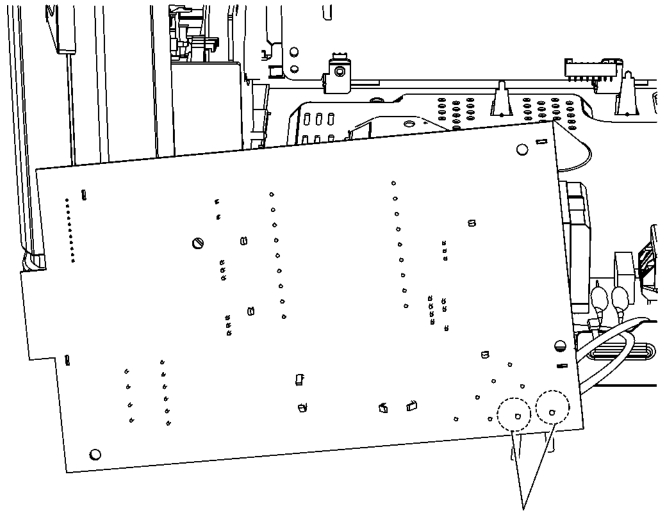
- Follow the (Step 1) to (Step 5) of Item 9.3
- Follow the (Step 1) to (Step 7) of Item 9.4
- Follow the (Step 1) to (Step 5) of Item 9.19



Step 1 Detach 11P cable at the connector (CN5802) on SMPS P.C.B..

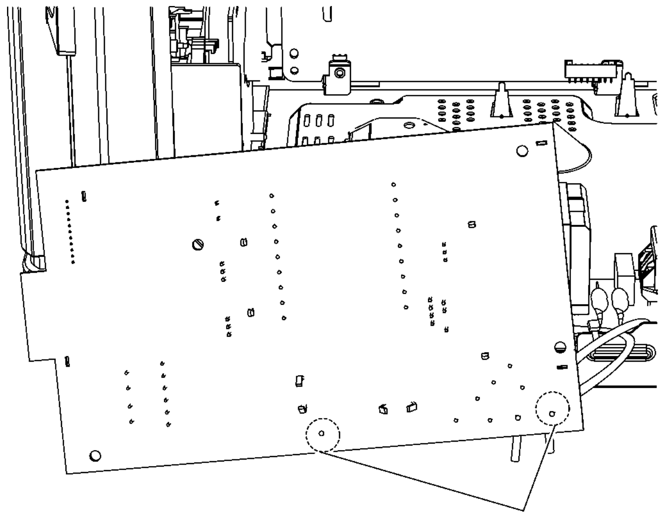


Step 2 Remove 4 screws on SMPS P.C.B..
Step 3 Lift up the SMPS P.C.B. as arrow shown.

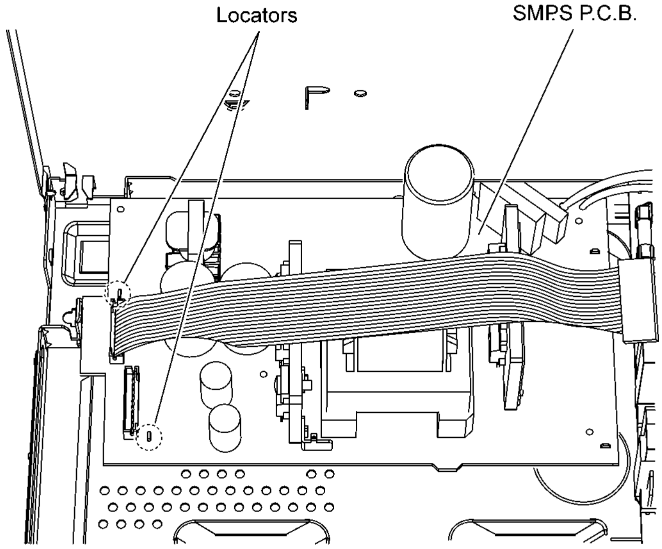


Step 4 Flip the SMPS P.C.B. and desolder 2 wires pins (red and black).

- **For GA/GS only**



Step 5 Desolder 2 wires pins (blue and white).

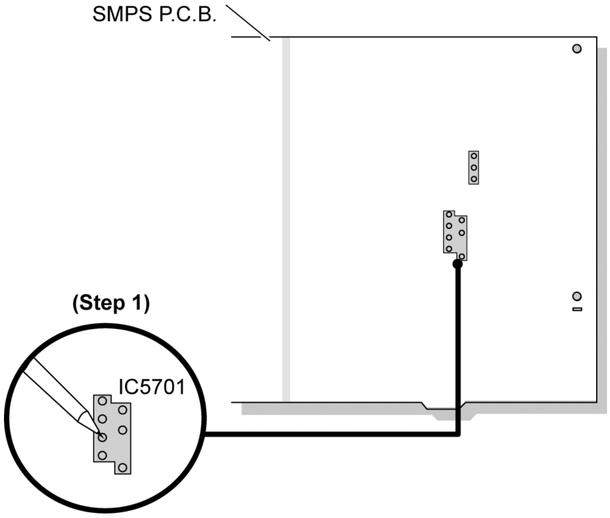


Caution: During assembling, ensure that SMPS P.C.B. is seated properly at the locators.

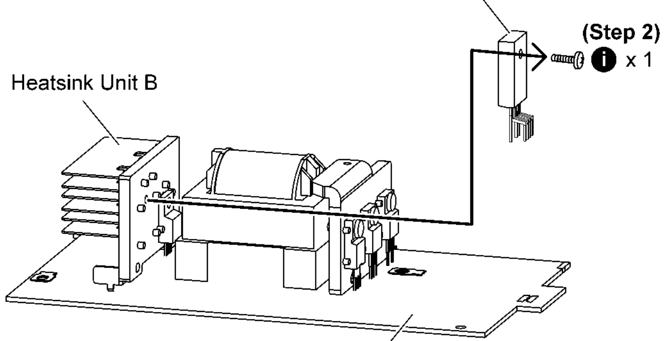
9.26. Replacement of Switching Regulator IC (IC5701)

- Follow (Step 1) to (Step 5) of Item 9.3
- Follow (Step 1) to (Step 7) of Item 9.4
- Follow (Step 1) to (Step 5) of Item 9.19
- Follow (Step 1) to (Step 5) of Item 9.25

9.26.1. Disassembly of Switching Regulator IC (IC5701)



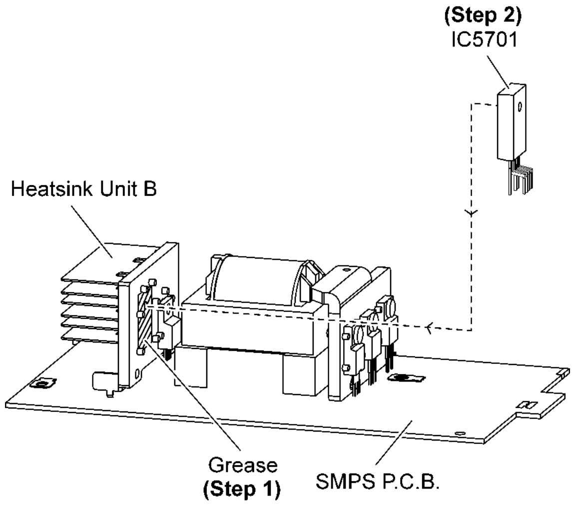
Step 1 Desolder pins of the switching regulator IC (IC5701) on the solder side of SMPS P.C.B.



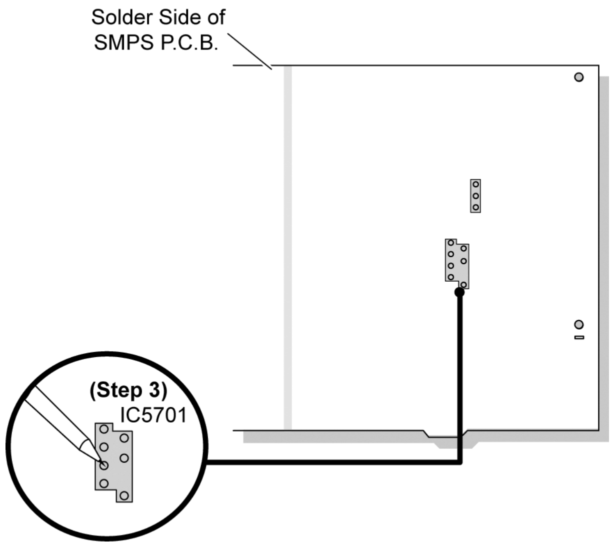
Step 2 Remove 1 screw from the Switch Regulator IC (IC5701).
Step 3 Remove the Switch Regulator IC (IC5701).

Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

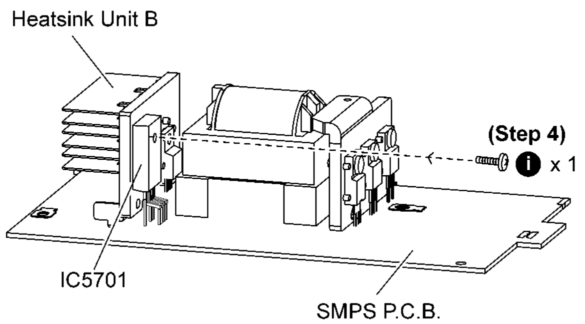
9.26.2. Assembly of Switching Regulator IC (IC5701)



Step 1 Apply grease to the Heatsink Unit B.
Step 2 Mount the Switching Regulator IC (IC5701) on to SMPS P.C.B..
Caution: Ensure pins of the switching regulator IC (IC5701) are properly seated on SMPS P.C.B.



Step 3 Solder pins of the Switching Regulator IC (IC5701) on the solder side of SMPS P.C.B..



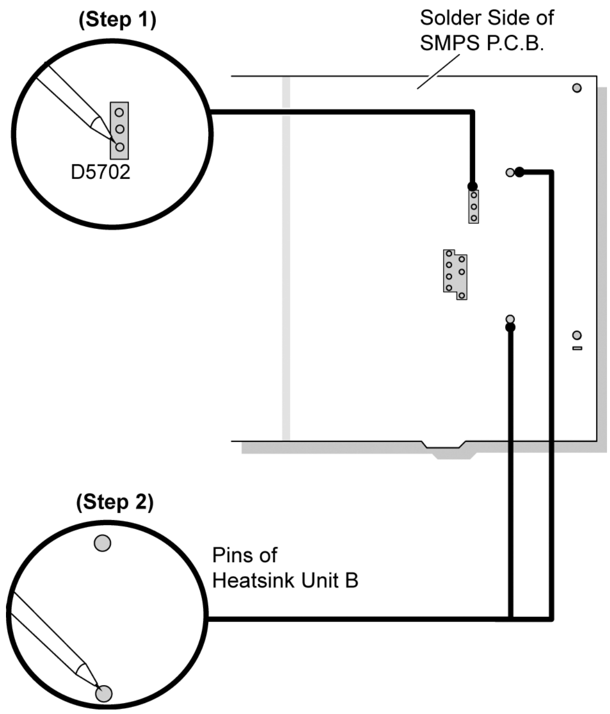
Step 4 Screw the Switching Regulator IC (IC5701) to the Heatsink Unit B.

Caution: Ensure the switching regulator IC (IC5701) is tightly screwed to the Heatsink Unit B.

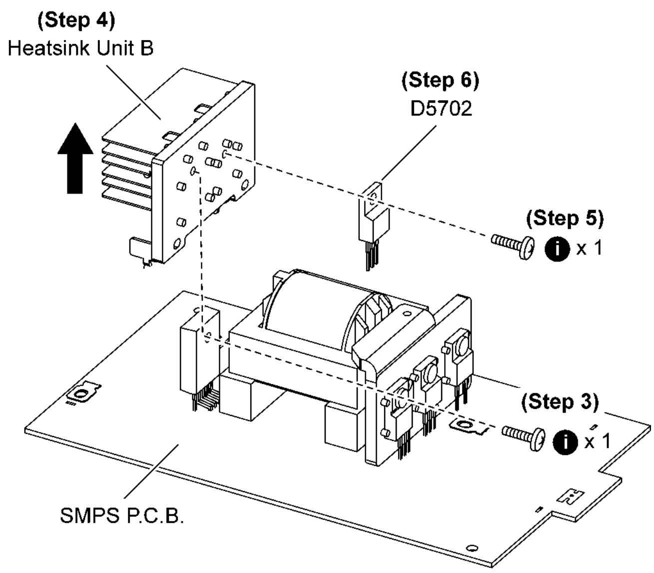
9.27. Replacement of Rectifier Diode (D5702)

- Follow (Step 1) to (Step 5) of Item 9.3
- Follow (Step 1) to (Step 7) of Item 9.4
- Follow (Step 1) to (Step 5) of Item 9.19
- Follow (Step 1) to (Step 5) of Item 9.25

9.27.1. Disassembly of Rectifier Diode (D5702)



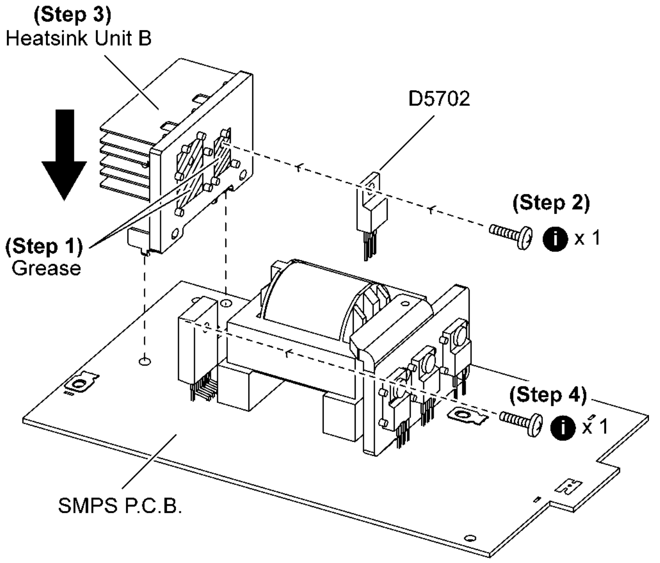
Step 1 Desolder pins of the Rectifier Diode (D5702) on the solder side of SMPS P.C.B..
Step 2 Desolder pins of the Heatsink Unit B.



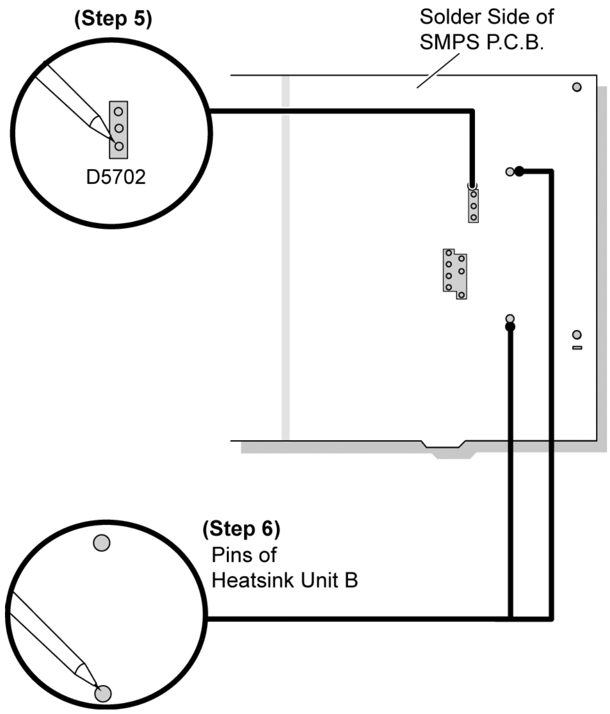
Step 3 Remove 1 screw from the Switching Regulator IC (IC5701).
Step 4 Remove the Heatsink Unit B in the direction of arrow

shown.
Step 5 Remove 1 screw.
Step 6 Remove the Rectifier Diode (D5702) from the Heatsink Unit B.
Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.27.2. Assembly of Rectifier Diode (D5702)



Step 1 Apply grease to the Heatsink Unit B.
Step 2 Screw the Rectifier Diode (D5702) to the Heatsink Unit B..
Caution: Ensure the Rectifier Diode (D5702) is well tightened to the Heatsink Unit B.
Step 3 Mount the Heatsink Unit B & Rectifier Diode (D5702) on to SMPS P.C.B..
Caution: Ensure pins of the Rectifier Diode (D5702) is properly seated on SMPS P.C.B..
Step 4 Screw the Switch Regulator IC (IC5701) to the Heatsink Unit B.
Caution: Ensure the Heatsink Unit B is properly seated on SMPS P.C.B.

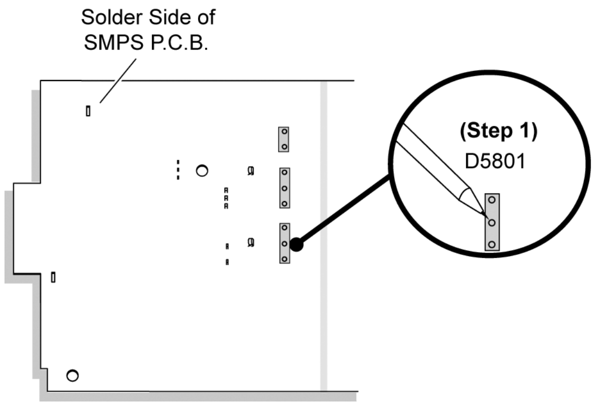


Step 5 Solder pins of the Rectifier Diode (D5702) on the solder side of SMPS P.C.B..
Step 6 Solder pins of the Heatsink Unit B on the solder side of SMPS P.C.B..

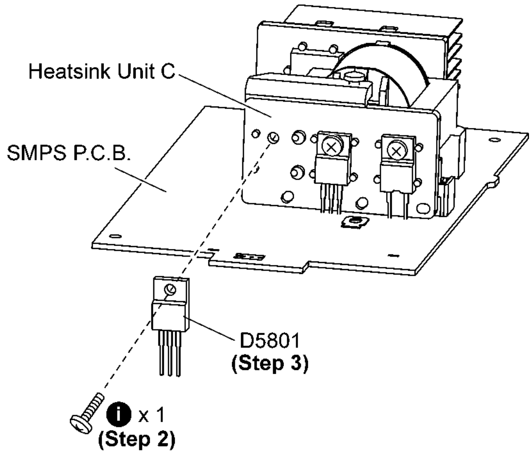
9.28. Replacement of Regulator Diode (D5801)

- Follow (Step 1) to (Step 5) of Item 9.3
- Follow (Step 1) to (Step 7) of Item 9.4
- Follow (Step 1) to (Step 5) of Item 9.19
- Follow (Step 1) to (Step 5) of Item 9.25

9.28.1. Disassembly of Regulator Diode (D5801)

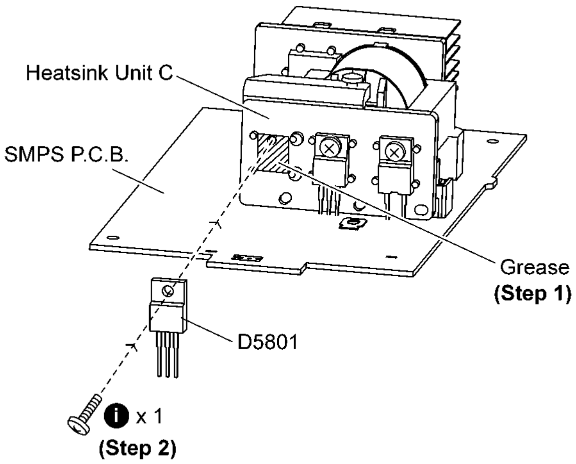


Step 1 Desolder pins of the Regulator Diode (D5801) on the solder side of SMPS P.C.B.

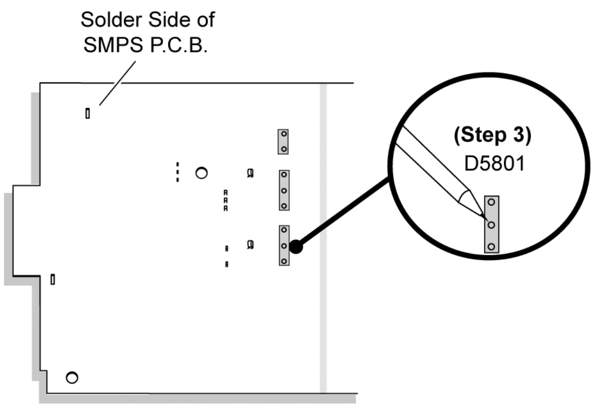


Step 2 Remove 1 screw.
Step 3 Remove the Regulator Diode (D5801).
Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.28.2. Assembly of Regulator Diode (D5801)



Step 1 Apply grease to the Heatsink Unit C.
Step 2 Mount & screw the Regulator Diode (D5801) to the Heatsink Unit C on the SMPS P.C.B..
Caution: Ensure the Regulator Diode (D5801) is well tightened to the Heatsink Unit C.



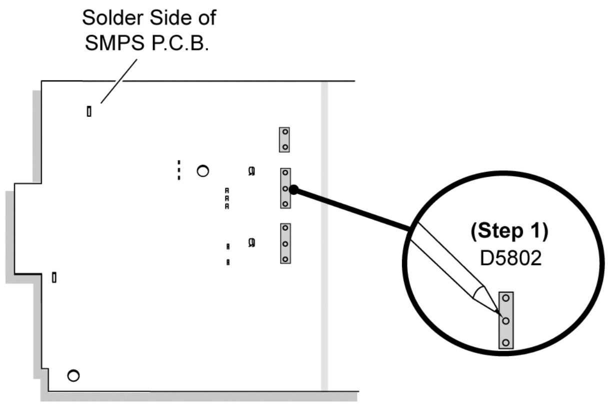
Step 3 Solder pins of the Regulator Diode (D5801) on the solder side of SMPS P.C.B..

Caution: Ensure pins of the Regulator Diode (D5801) is properly seated and soldered on SMPS P.C.B.

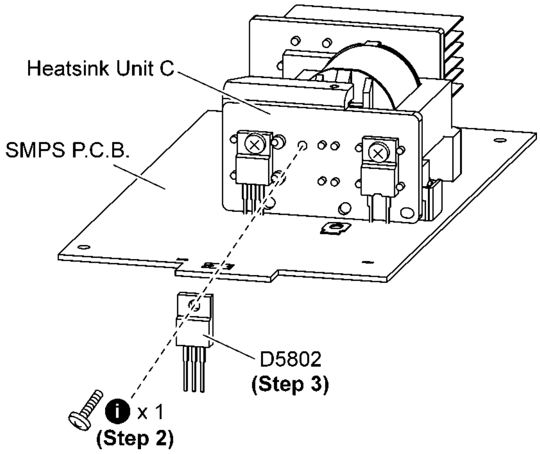
9.29. Replacement of Regulator Diode (D5802)

- Follow (Step 1) to (Step 5) of Item 9.3
- Follow (Step 1) to (Step 7) of Item 9.4
- Follow (Step 1) to (Step 5) of Item 9.19
- Follow (Step 1) to (Step 5) of Item 9.25

9.29.1. Disassembly of Regulator Diode (D5802)



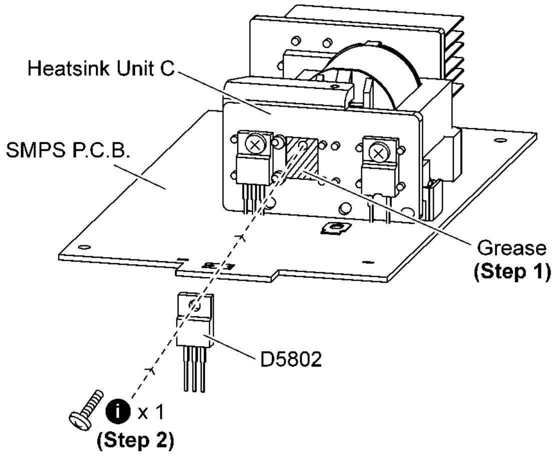
Step 1 Desolder pins of the Regulator Diode (D5802) on the solder side of SMPS P.C.B..



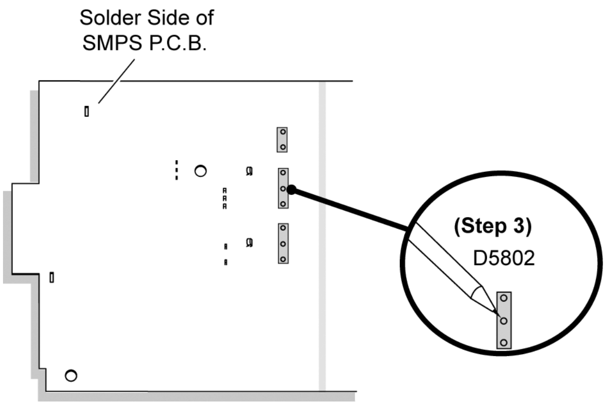
Step 2 Remove 1 screw.
Step 3 Remove the Regulator Diode (D5802) from the Heatsink Unit C.

Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.29.2. Assembly of Regulator Diode (D5802)



Step 1 Apply grease to the Heatsink Unit C.
Step 2 Mount & screw the Regulator Diode (D5802) to the Heatsink Unit C on SMPS P.C.B..
Caution: Ensure the Regulator Diode (D5802) is well tightened to the heatsink unit C.

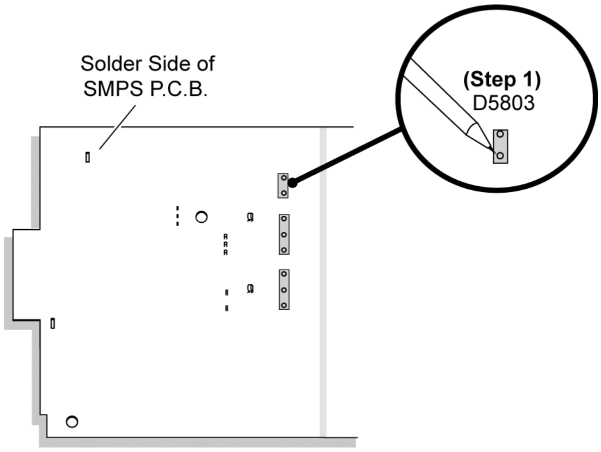


Step 3 Solder pins of the Regulator Diode (D5802) on the solder side of SMPS P.C.B..
Caution: Ensure pins of the Regulator Diode (D5802) is properly seated and soldered on SMPS P.C.B.

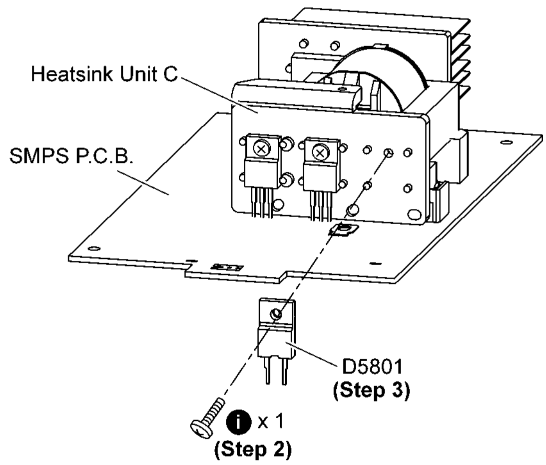
9.30. Replacement of Regulator Diode (D5803)

- Follow (Step 1) to (Step 5) of Item 9.3
- Follow (Step 1) to (Step 7) of Item 9.4
- Follow (Step 1) to (Step 5) of Item 9.19
- Follow (Step 1) to (Step 5) of Item 9.25

9.30.1. Disassembly of Regulator Diode (D5803)

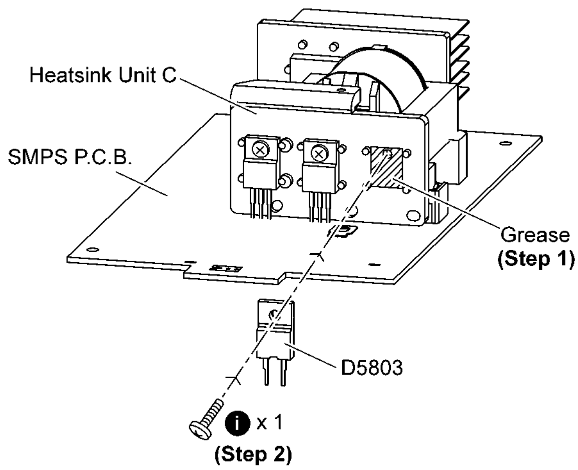


Step 1 Desolder pins of the Regulator Diode (D5803) on the solder side of SMPS P.C.B..



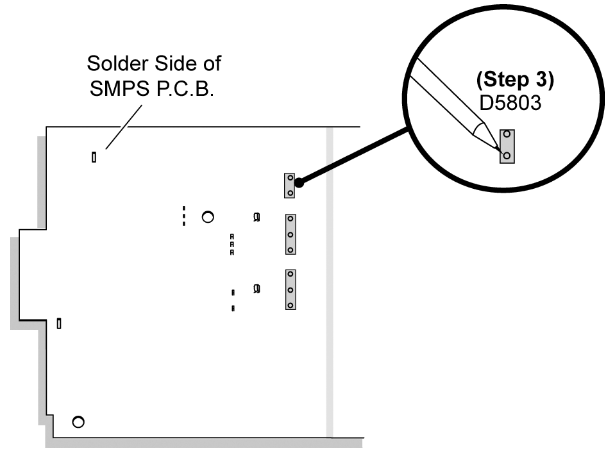
Step 2 Remove 1 screw.
Step 3 Remove the Regulator Diode (D5803) from the Heatsink Unit C.
Caution: During replacement of the part, avoid touching the heatsink, it may lead to injuries.

9.30.2. Assembly of Regulator Diode (D5803)



Step 1 Apply grease to the Heatsink Unit C.
Step 2 Mount & screw the regulator diode (D5803) to the Heatsink Unit C on SMPS P.C.B..

Caution: Ensure the Regulator Diode (D5803) is well tightened to the Heatsink Unit C.

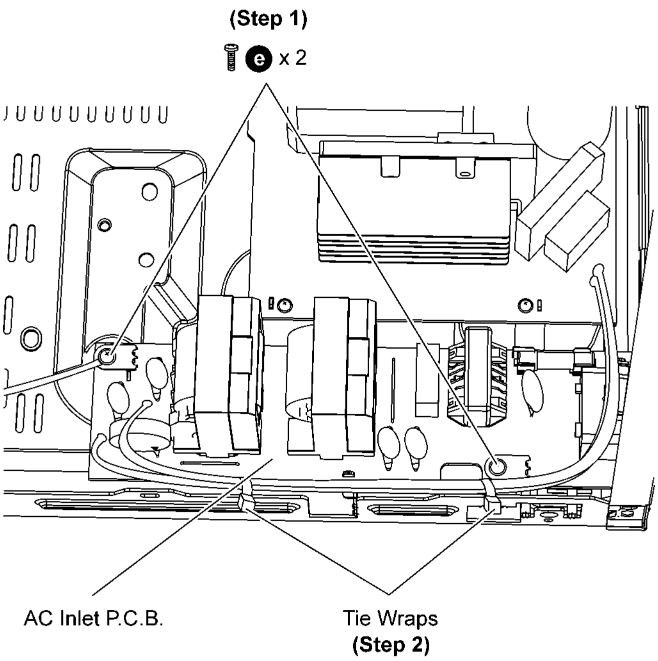


Step 3 Solder pins of the Regulator Diode (D5803) on the solder side of SMPS P.C.B..

Caution: Ensure pins of the regulator diode (D5803) are properly seated and soldered on SMPS P.C.B..

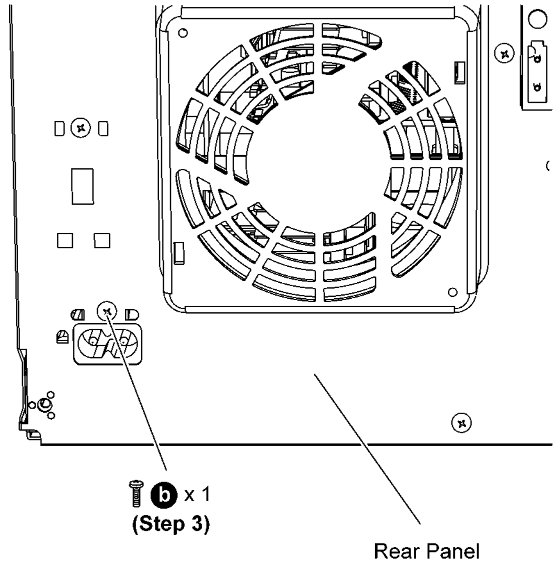
9.31. Disassembly of AC Inlet P.C.B.

- Follow the (Step 1) to (Step 5) of Item 9.3

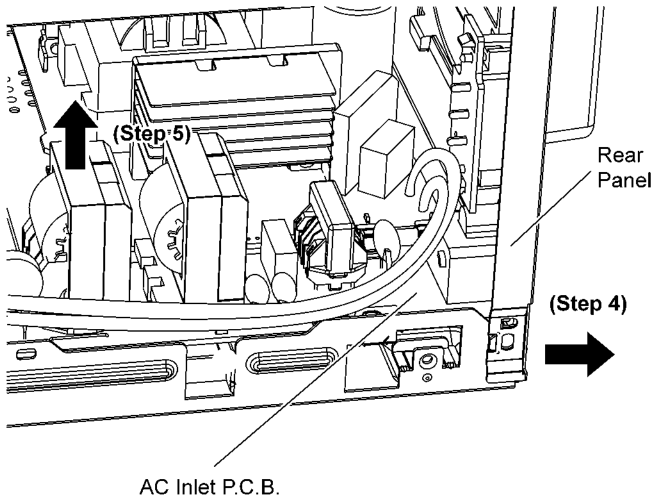


Step 1 Remove 2 screws at AC Inlet P.C.B..

Step 2 Cut 2 tie wraps.

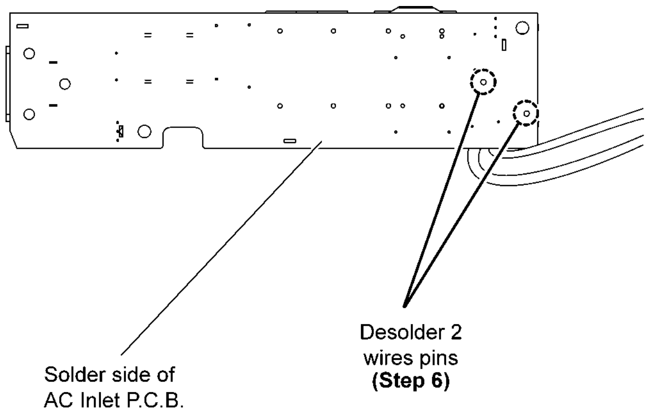


Step 3 Remove 1 screw at the rear panel.

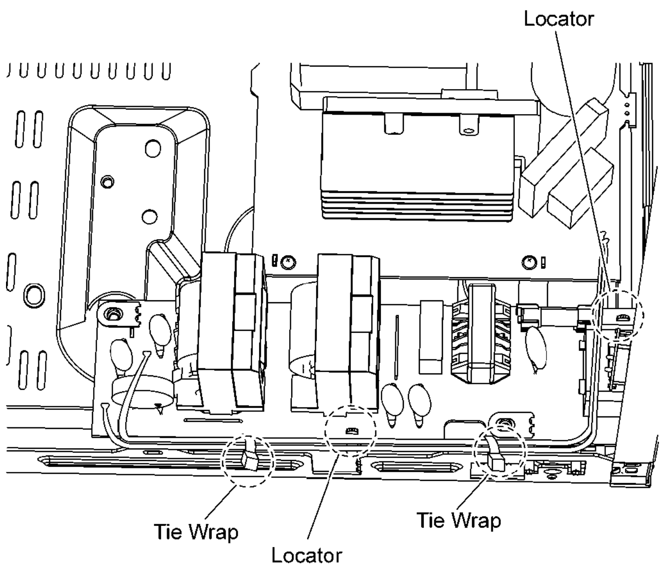


Step 4 Detach the rear panel slightly backward as arrow shown.

Step 5 Lift up the AC Inlet P.C.B..



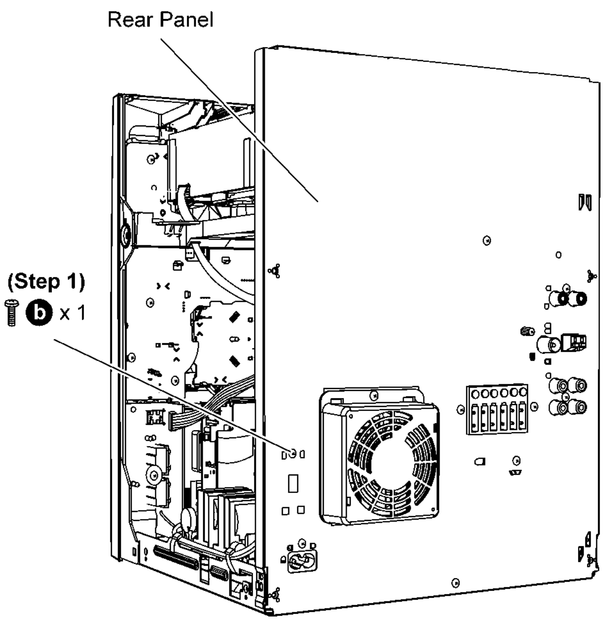
Step 6 Flip over the AC Inlet P.C.B. and desolder 2 wires pins (red and black).



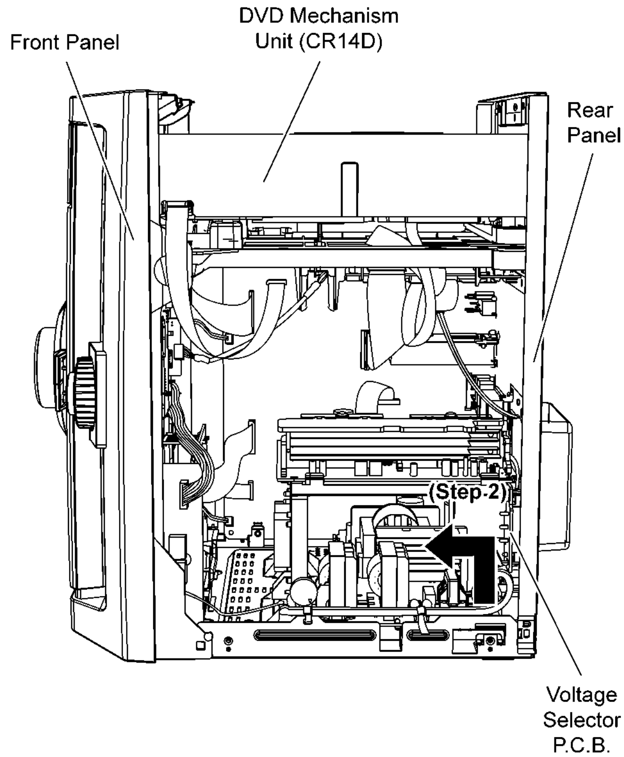
Caution: During assembling, ensure the P.C.B. is seated properly at the locators.
Caution: Remember to use tie wraps to tie red & black wires between AC Inlet P.C.B. to the chassis.

9.32. Disassembly of Voltage Selector P.C.B.

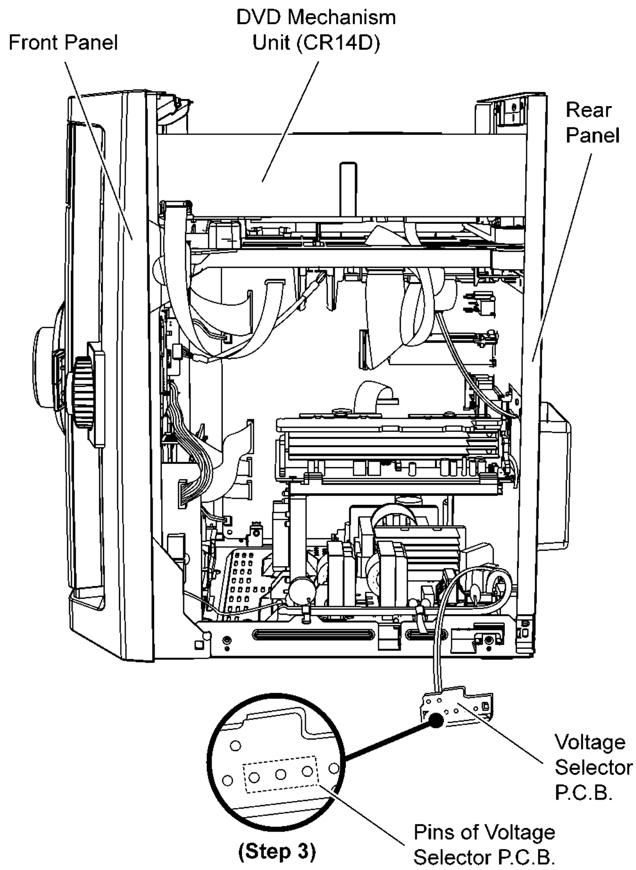
- Follow (Step 1) to (Step 5) of Item 9.3



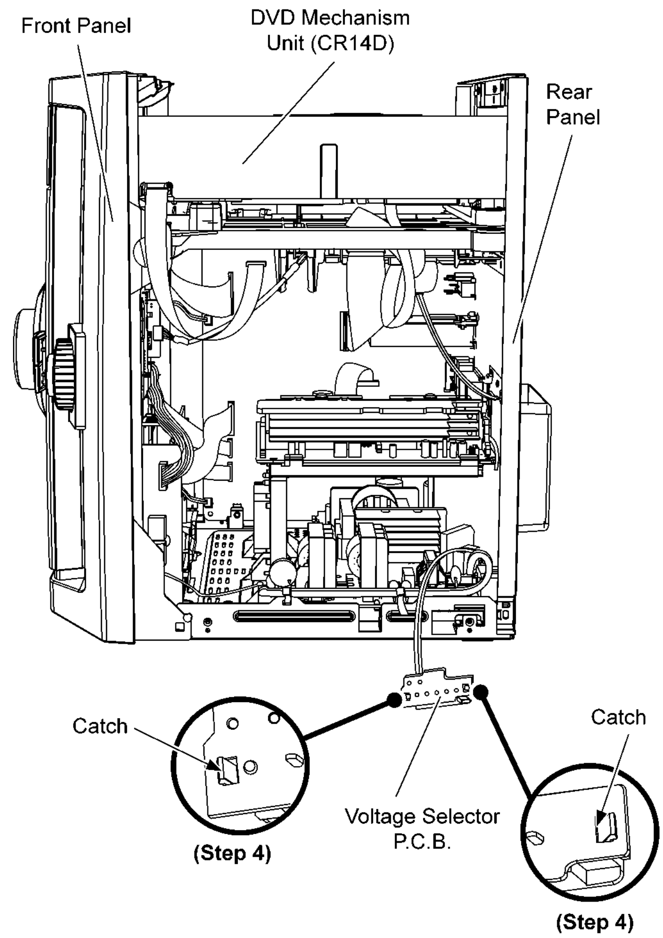
Step 1 Remove 1 screw at the rear panel.



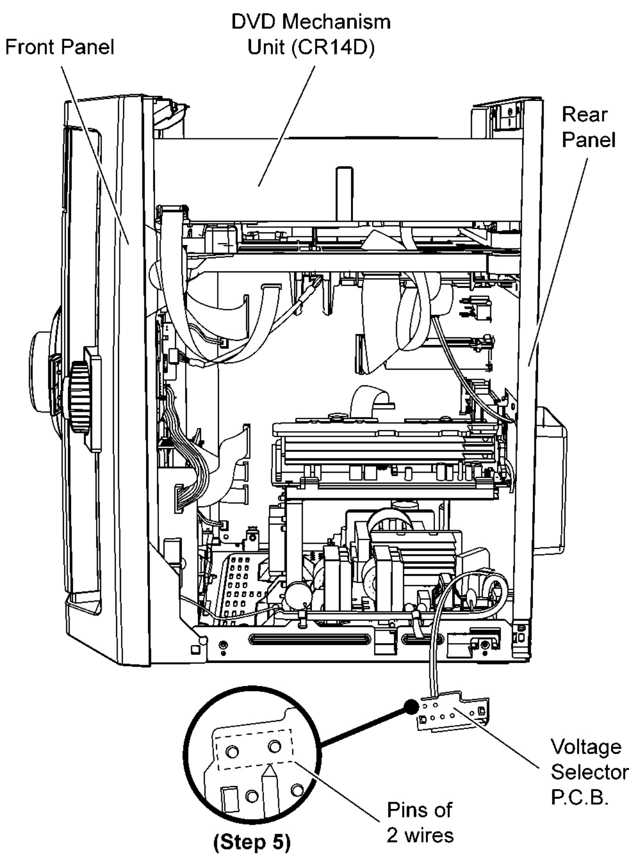
Step 2 Detach the Voltage Selector P.C.B. from rear panel in the direction of arrow.



Step 3 Desolder 3 pins of Voltage Selector P.C.B..



Step 4 Release 2 catches on Voltage Selector P.C.B..

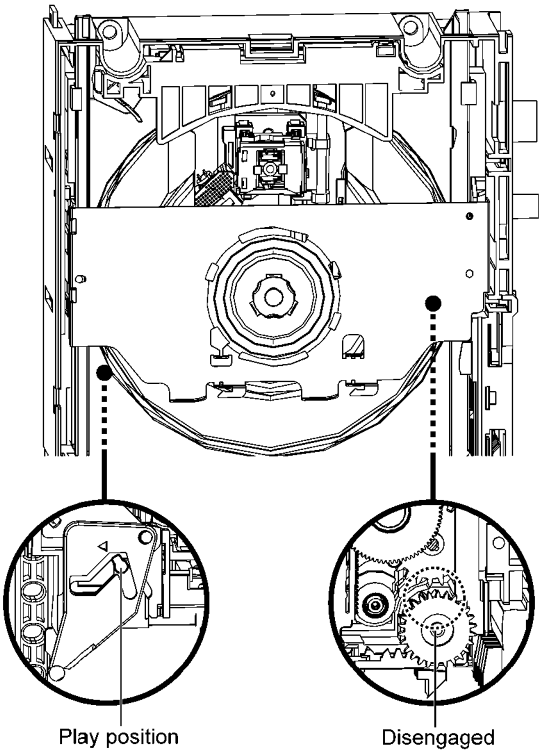


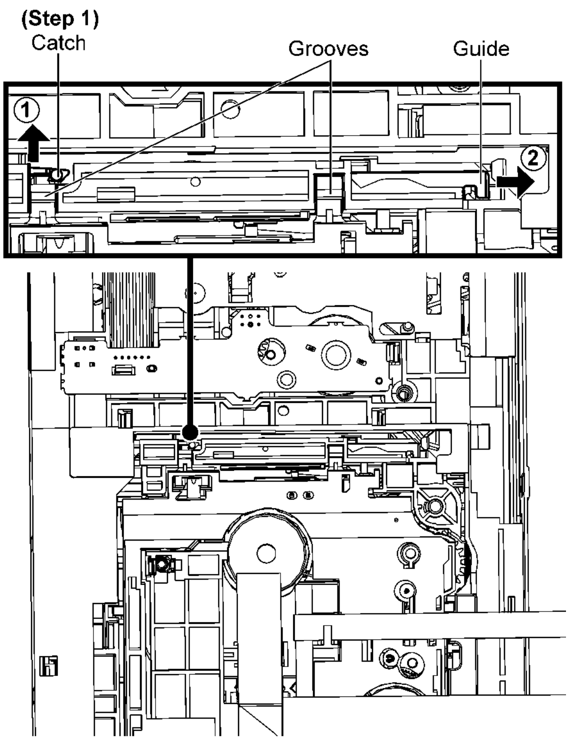
Step 5 Desolder 2 wires (White and blue) pins.
Step 6 Remove the Voltage Selector P.C.B..

10 Disassembling and Assembling of Traverse Unit

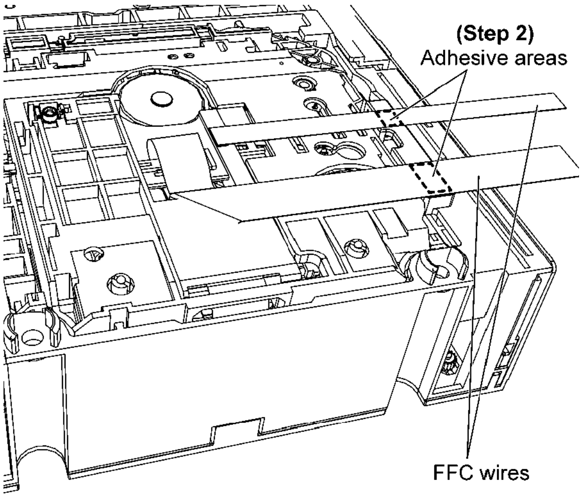
Note: Refer to Section 6.3.1. Self-Diagnosis Mode Table 1 to set to Service Mode 2.

10.1. Disassembly Procedures





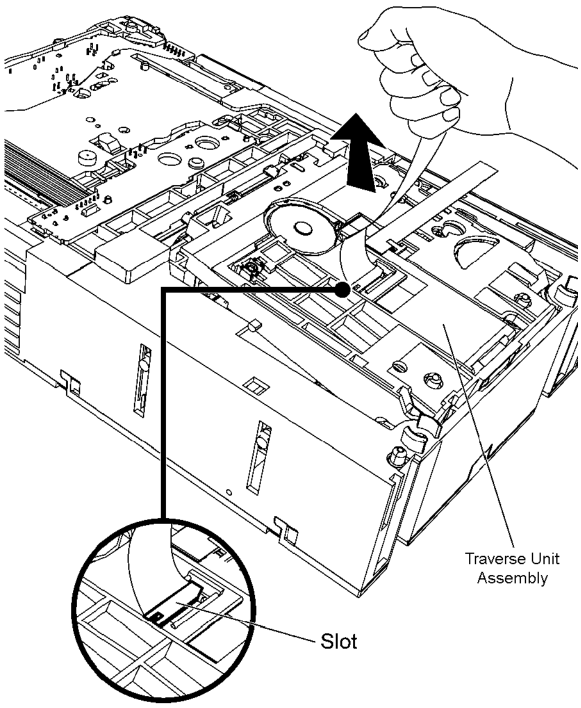
Step 1 Release the catch and push the guide as arrows shown to open both grooves.

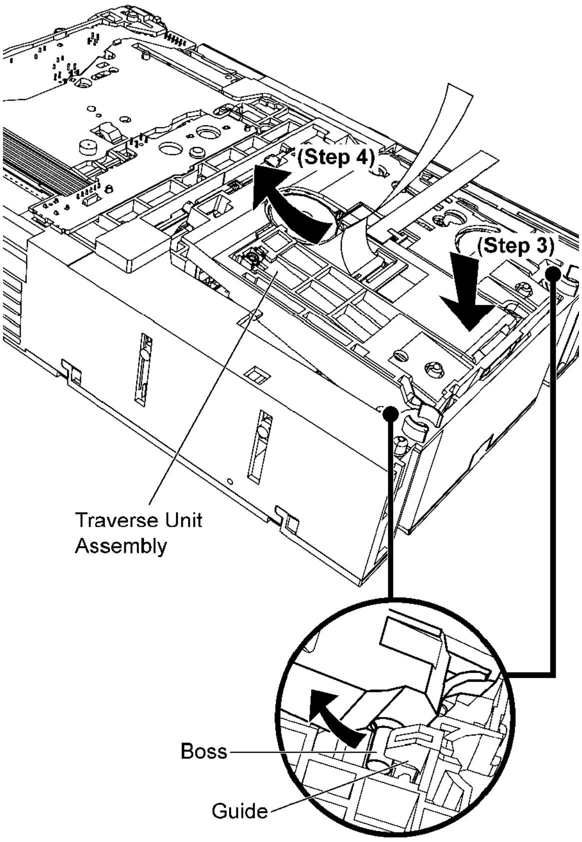


Step 2 Detach the FFC wires from the adhesive areas.

Caution:

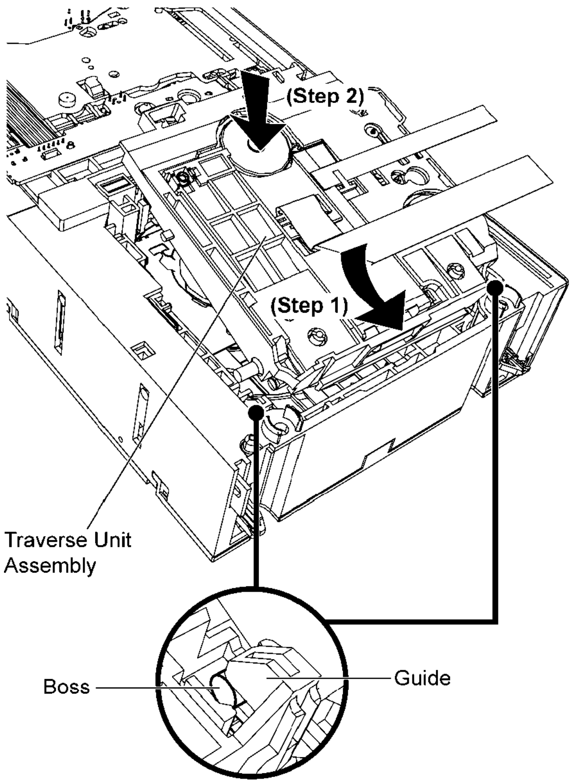
Do not pull the FFC wire to remove the traverse unit assembly, as it may cause damage to the slot.



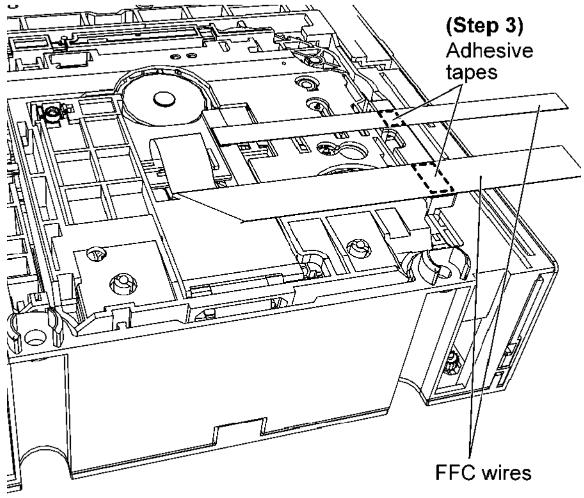


Step 3 Press down the traverse unit assembly.
Step 4 Remove the traverse unit assembly as arrow shown.

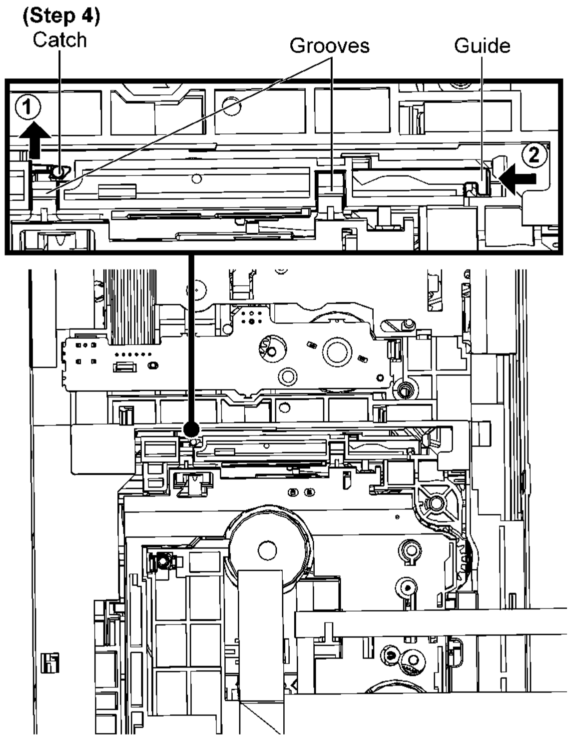
10.2. Assembly Procedures



Step 1 Slot the traverse unit assembly into the guides as arrow shown.
Note: Ensure the bosses fix exactly onto the guides.
Step 2 Place down the traverse unit assy.



Step 3 Fix the FFC wires by using the adhesive tapes.



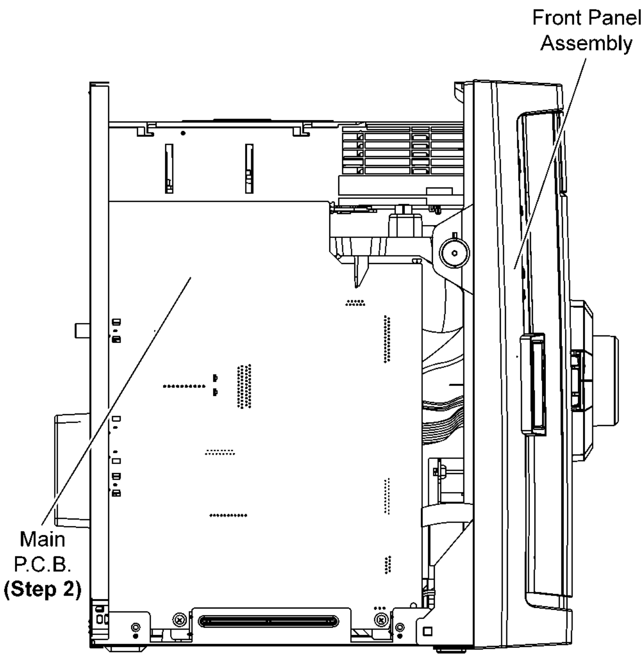
Step 4 Release the catch and push the guide as arrows shown to close both grooves.

11 Service Positions

Note: For description of the disassembly procedures, see the Section 9.

11.1. Checking and Repairing of Main P.C.B.

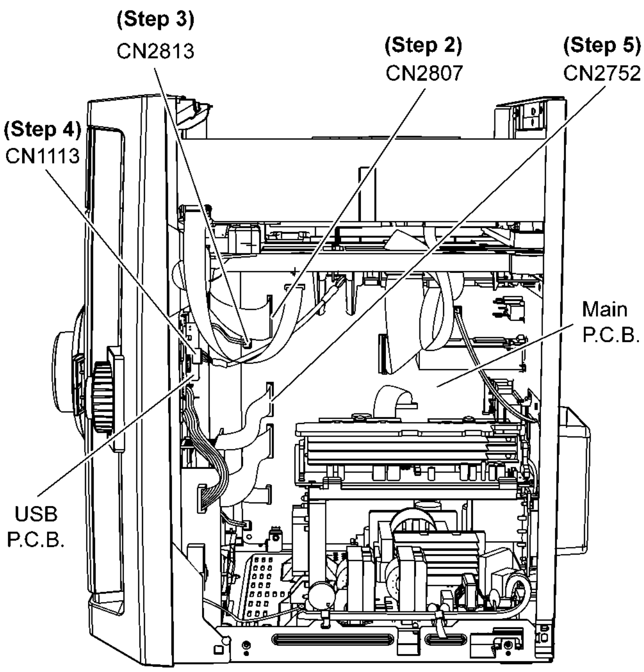
Step 1 Remove the top cabinet .



Step 2 Main P.C.B. can be checked at its original position.

11.2. Checking and Repairing Panel P.C.B., Deck P.C.B., Volume P.C.B., Music Port P.C.B. and Mic P.C.B.

Step 1 Remove the top cabinet.

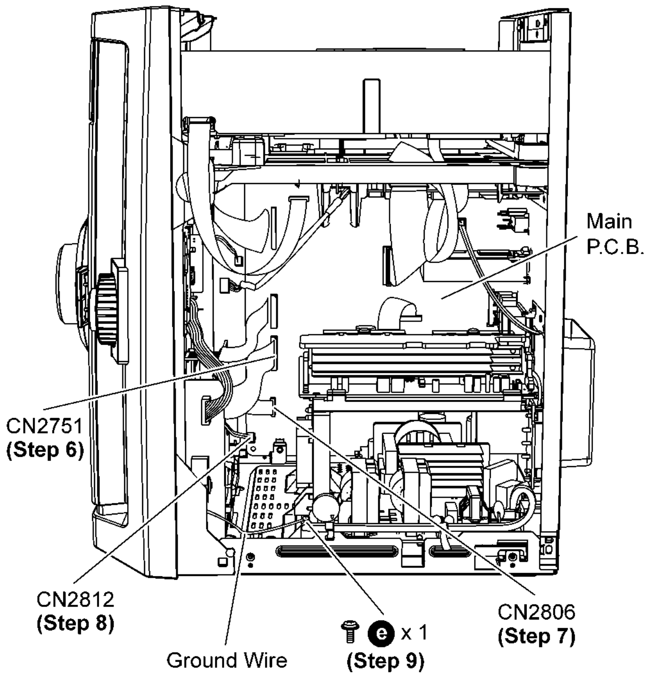


Step 2 Detach 27P FFC at the connector (CN2807) on Main P.C.B..

Step 3 Detach 2P cable at the connector (CN2813) on Main P.C.B..

Step 4 Detach 5P cable at the connector (CN1113) on USB P.C.B..

Step 5 Detach 10P FFC at the connector (CN2752) on Main P.C.B..

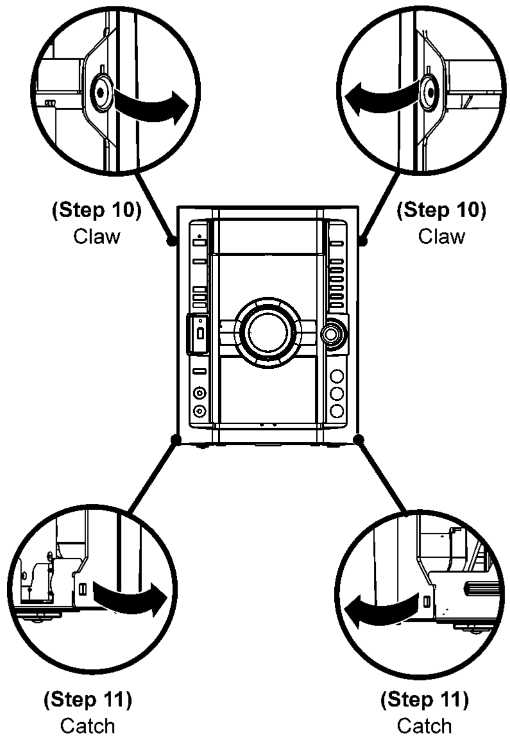


Step 6 Detach 12P FFC at the connector (CN2751) on Main P.C.B..

Step 7 Detach 10P FFC at the connector (CN2806) on Main P.C.B..

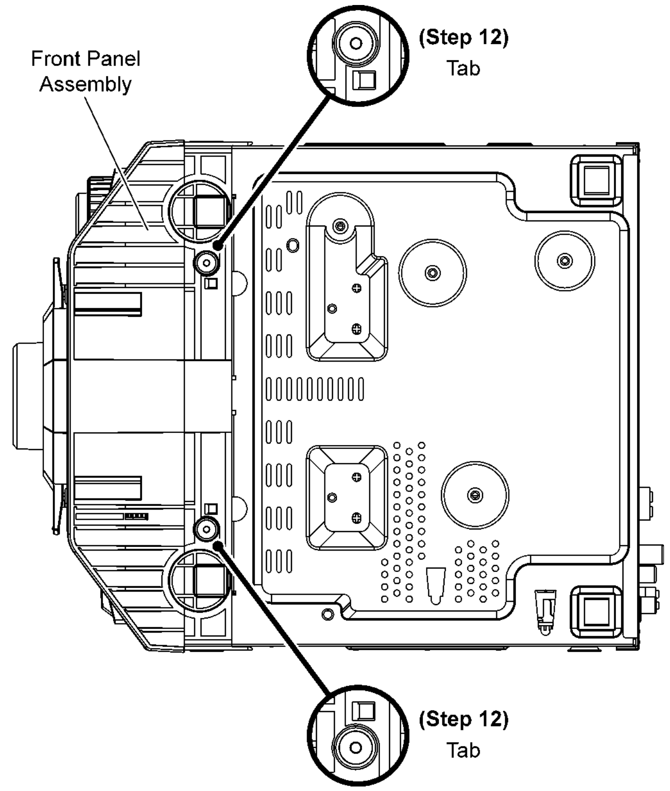
Step 8 Detach 2P cable at connector (CN2812) on Main P.C.B..

Step 9 Remove 1 screw to remove ground wire.

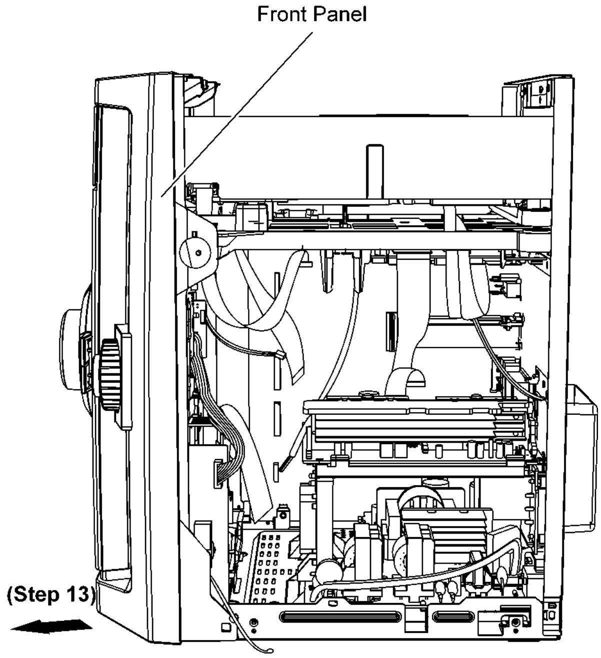


Step 10 Release the claws outwards on both sides.

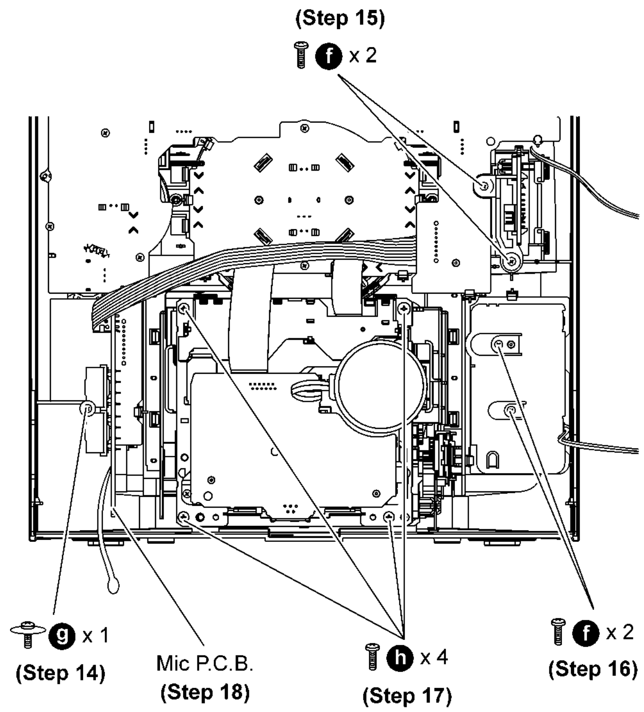
Step 11 Release the catches at both sides.



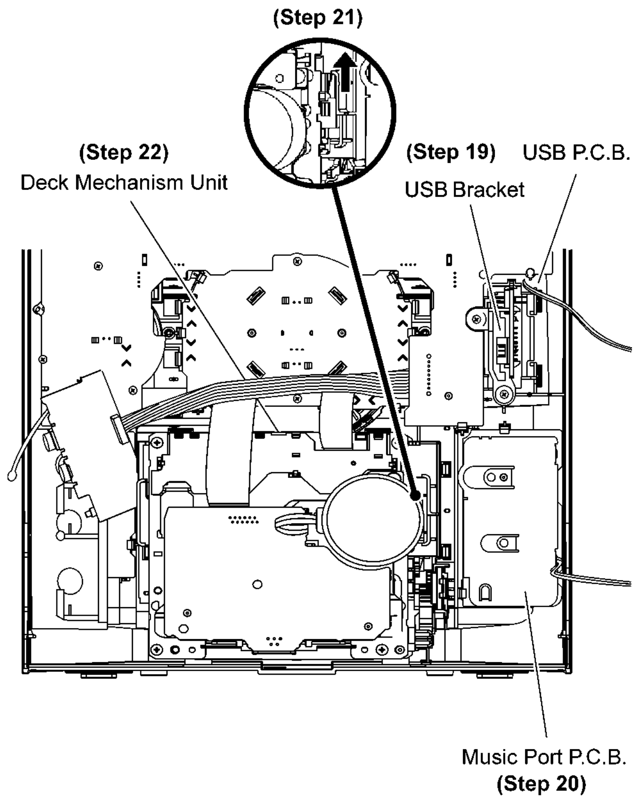
Step 12 Release the tabs at the bottom of front panel.



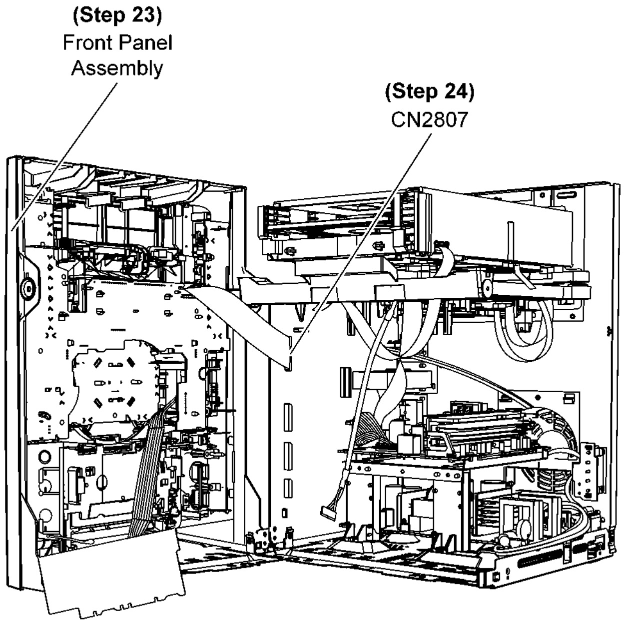
Step13 Remove front panel unit in the direction of arrow.



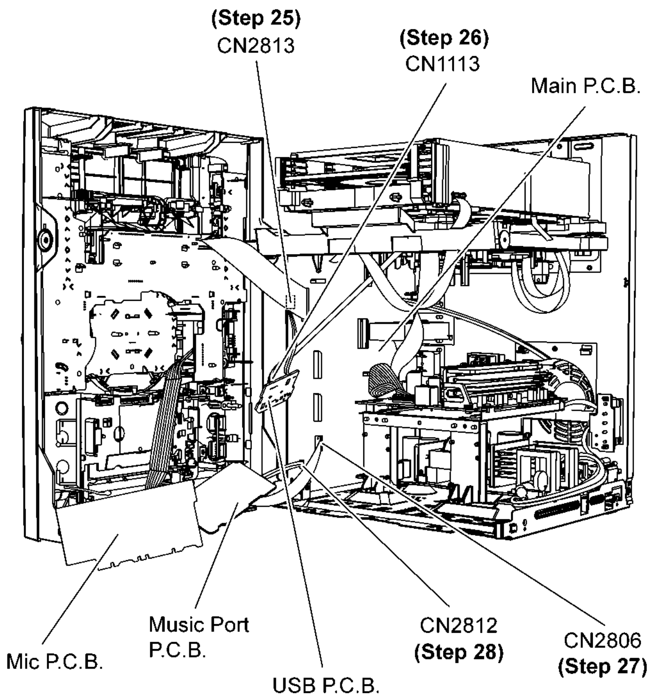
Step 14 Remove 1 screw at Mic P.C.B..
Step 15 Remove 2 screws on USB bracket.
Step 16 Remove 2 screws on Music Port P.C.B..
Step 17 Remove 4 screws at Deck Mechanism unit.
Step 18 Remove Mic P.C.B..



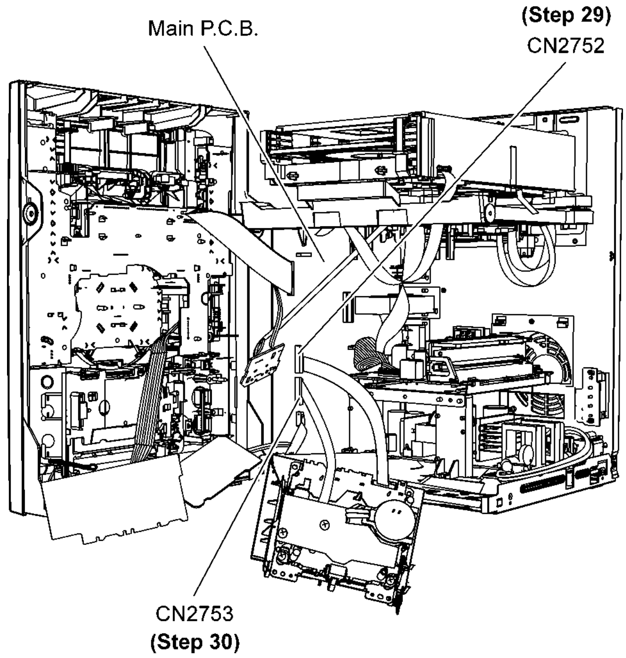
Step 19 Remove USB P.C.B. with USB bracket.
Step 20 Remove Music Port P.C.B..
Step 21 Push the lever upward as arrow shown to open the cassette lid assembly.
Step 22 Remove Deck Mechanism unit.



Step 23 Position front panel assembly according to the diagram show.
Step 24 Connect 27P FFC at connector (CN2807) on Main P.C.B..



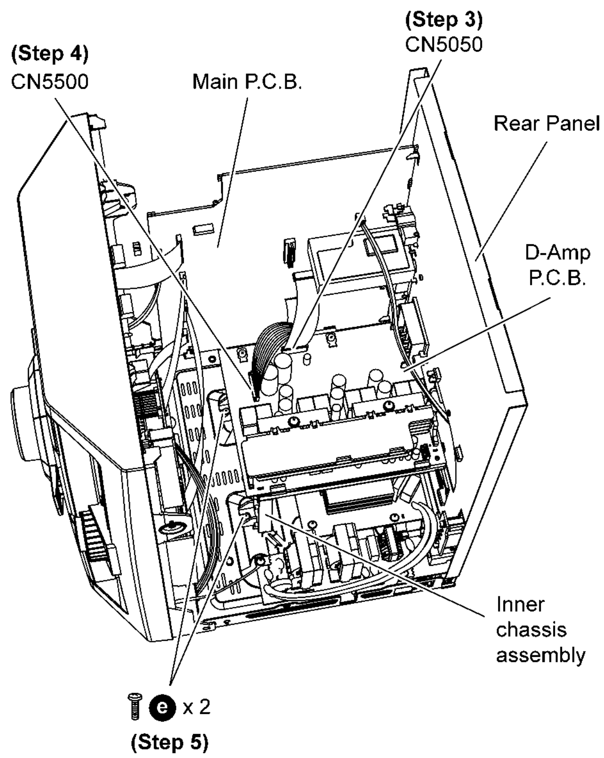
Step 25 Connect 2P cable at connector (CN2813) on Main P.C.B..
Step 26 Connect 5P cable at connector (CN1113) on USB P.C.B..
Step 27 Connect 10P FFC at connector (CN2806) on Main P.C.B..
Step 28 Connect 2P cable at connector (CN2812) on Main P.C.B..



Step 29 Connect 10P FFC at the connector (CN2752) on Main P.C.B..
Step 30 Connect 12P FFC at the connector (CN2753) on Main P.C.B..
Step 31 Check and repair panel P.C.B., Deck P.C.B., Volume P.C.B., Music Port P.C.B. and Mic P.C.B..

11.3. Checking and Repairing of D-Amp P.C.B.

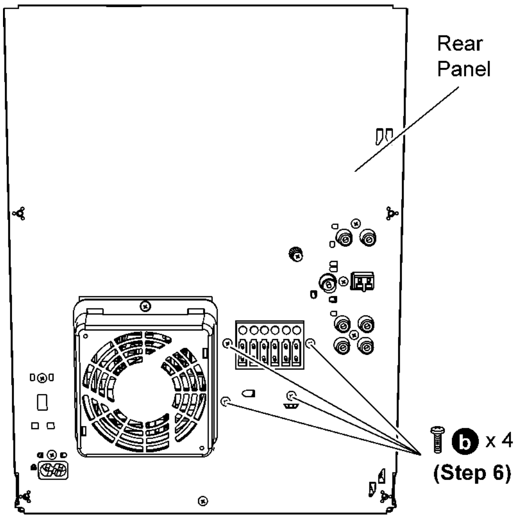
Step 1 Remove the top cabinet.
Step 2 Remove the DVD Mechanism Unit (CR14D).



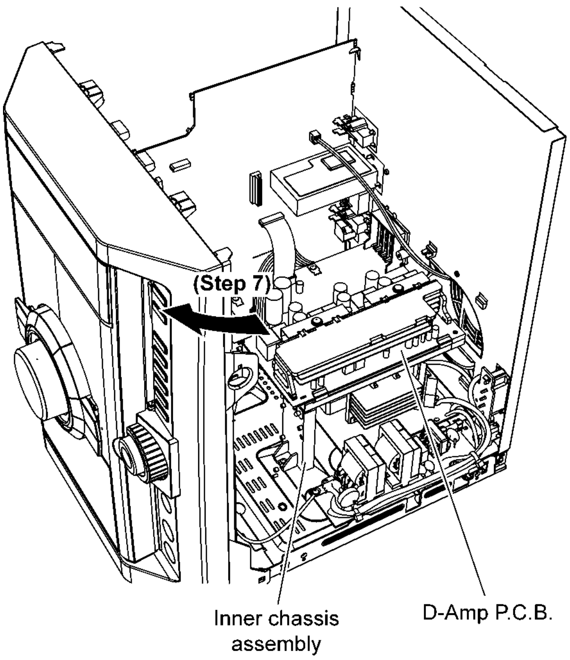
Step 3 Detach 17P FFC at connector (CN5050) on D-Amp P.C.B..
Step 4 Detach 8P cable at connector (CN5500) on D-Amp

P.C.B..

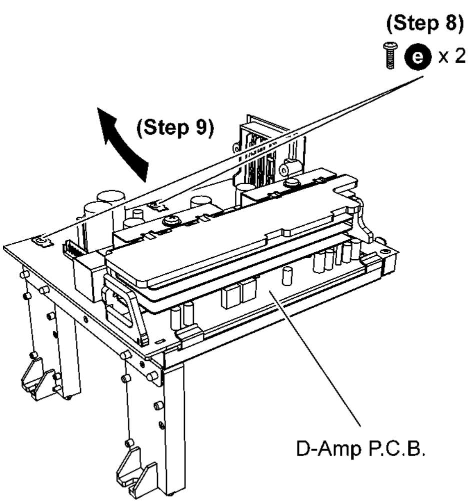
Step 5 Remove 2 screws at Inner chassis assembly.



Step 6 Remove 4 screws at the rear panel.

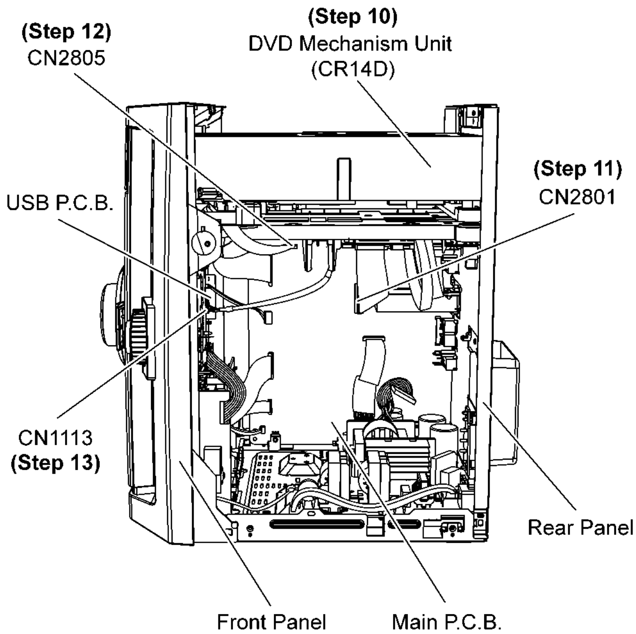


Step 7 Lift up the D-Amp P.C.B. together with the Inner chassis assembly as arrow shown.



Step 8 Remove 2 screws from D-Amp P.C.B..

Step 9 Lift up D-Amp P.C.B. as arrow shown.

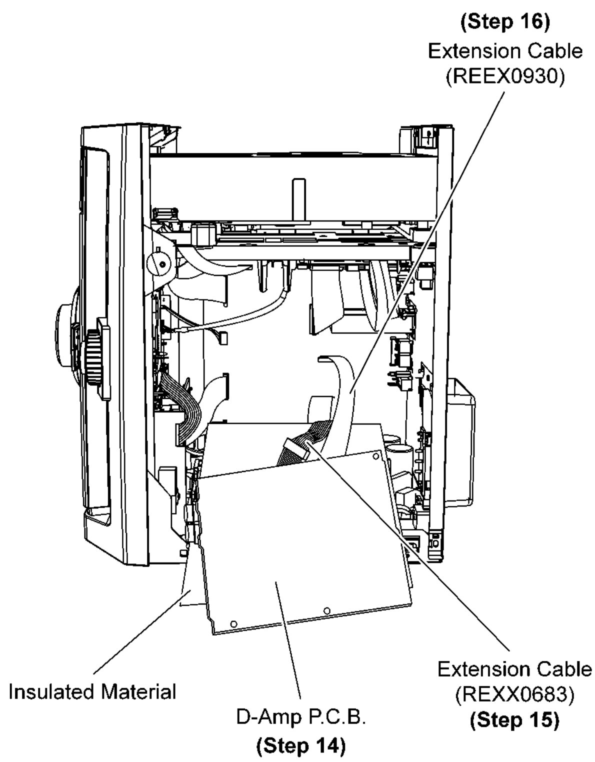


Step 10 Position DVD Mechanism unit (CR14D) according to the diagram shown.

Step 11 Connect 50P FFC cable at the connector (CN2801) on Main P.C.B..

Step 12 Connect 11P FFC cable at the connector (CN2805) on Main P.C.B..

Step 13 Connect 5P cable at the connector (CN1113) on USB P.C.B..



Step 14 Position D-Amp P.C.B. according to diagram shown.

Step 15 Attach original cable with extension cable (REXX0683) (8P cable from H5801 to CN5500).

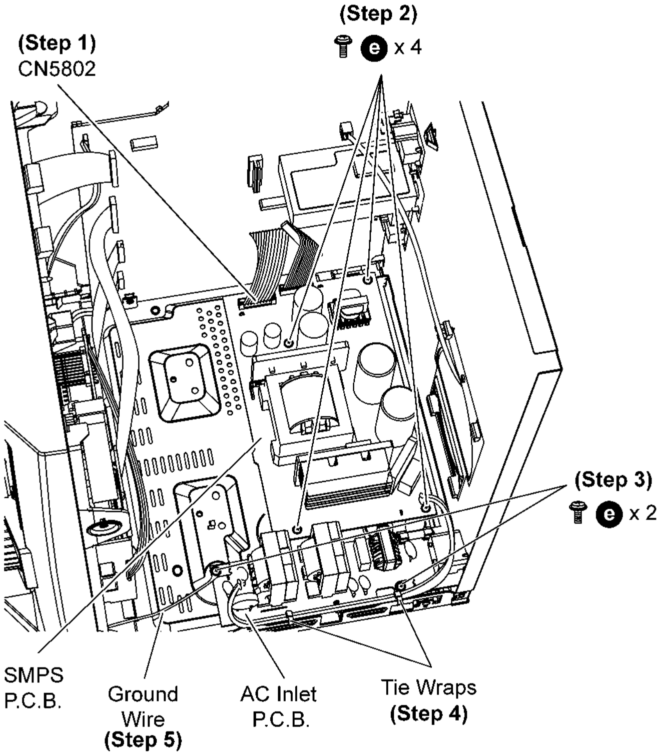
Step 16 Connect extension cable (REEX0930) (17P cable from CN2808 to CN5050).

Step 17 Check and repair D-Amp P.C.B. according to the dia-

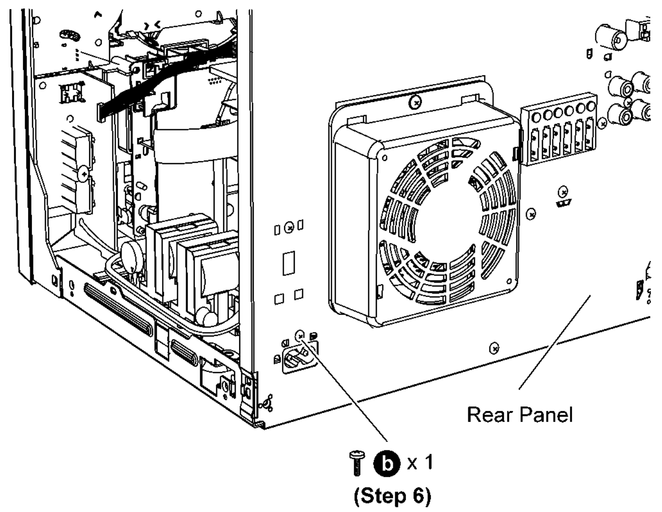
gram shown.

11.4. Checking and Repairing of AC Inlet P.C.B. & SMPS P.C.B.

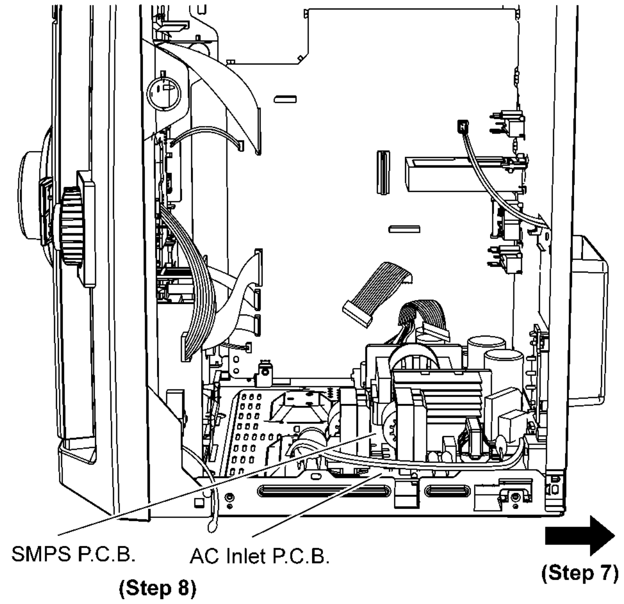
- Follow (Step 1) to (Step 9) of item 11.3



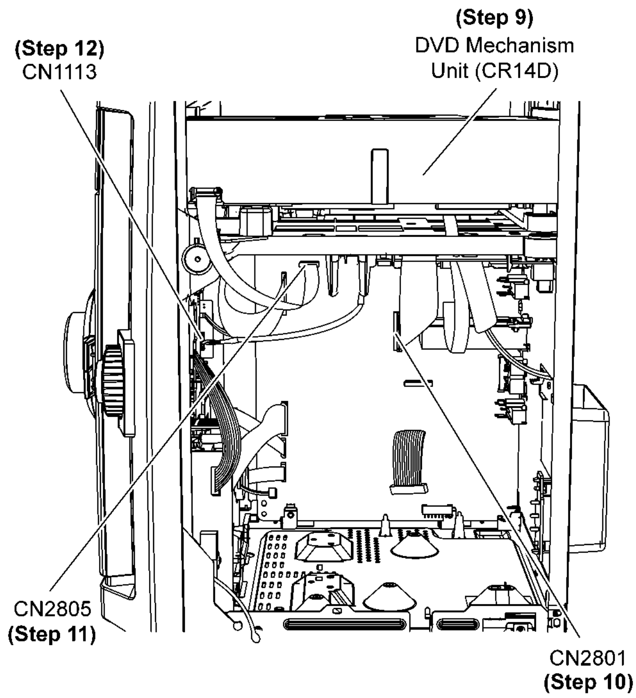
Step 1 Detach wire connector at connector (CN5802) on SMPS P.C.B..
Step 2 Remove 4 screws on SMPS P.C.B..
Step 3 Remove 2 screws on AC Inlet P.C.B..
Step 4 Cut 2 tie wraps onto wires.
Step 5 Remove ground wire.



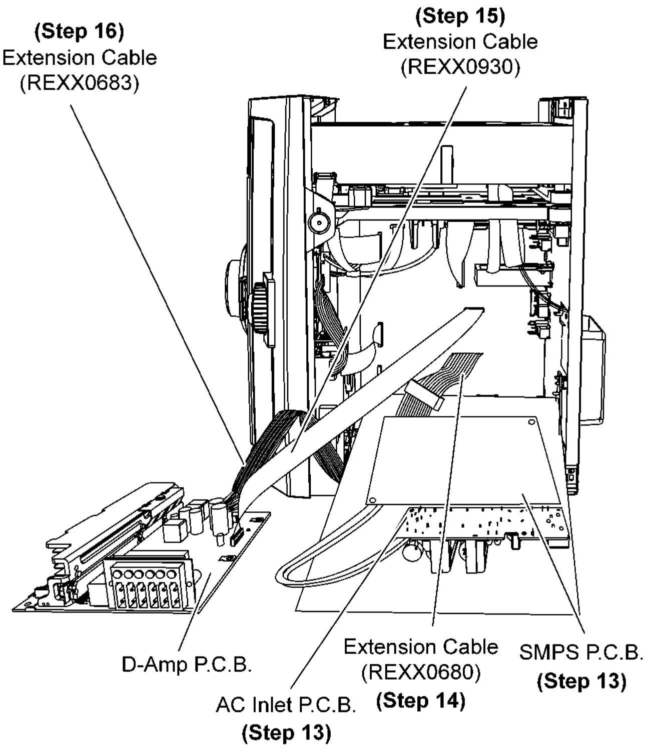
Step 6 Remove 1 screw at the rear panel.



Step 7 Move the rear panel slightly backward as arrow shown.
Step 8 Lift up the AC Inlet P.C.B. together with the SMPS P.C.B..



Step 9 Position DVD Mechanism unit (CR14D) according to the diagram shown.
Step 10 Connect 50P FFC cable at the connector (CN2801) on Main P.C.B..
Step 11 Connect 11P FFC cable at the connector (CN2805) on Main P.C.B..
Step 12 Connect 5P cable at the connector (CN1113) on USB P.C.B..



Step 13 Position SMPS and AC Inlet P.C.B. acccording to the diagram shown.
Step 14 Attach original cable with extension cable (REXX0680) (11P cable from ZJ2701 to CN5050).
Step 15 Connect extension cable (REEX0930) (17P cable from CN2808 to CN5050).
Step 16 Attach original cable with extension cable (REEX0683) (8P cable from H5801 to CN5500).
Step 17 Service and repair AC Inlet P.C.B. and SMPS P.C.B. respectively.

12 Measurements and Adjustments

12.1. Cassette Deck

1. Input point: Not Applicable.
2. Input signal: Test Tape (QZZCWAT).
3. Measuring point: Pin 3 (signal) & Pin 2 (ground at Deck P.C.B.).
4. Mode: Tape.
5. Preparation Items:
   a. Test tape (as described in item 2).
   b. Headphone Jack output jig (Figure 2).
   c. Frequency indicator.
   d. Electrical voltmeter.
   e. Digital frequency counter.
   f. Oscilloscope.

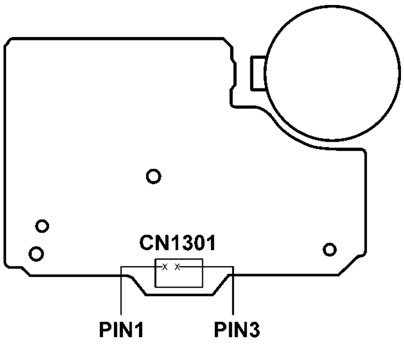


Figure 1

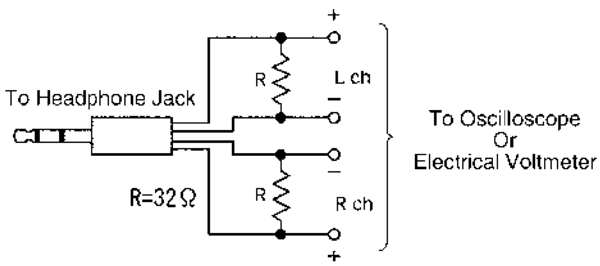


Figure 2

12.2. Tape Speed Adjustment

1. Connect the frequency indicator to the R-ch of the headphone output jig (Figure 3).
2. Insert the test tape (QZZCWAT).
3. Playback the middle portion of the test tape (QZZCWAT).
4. Adjust the motor screw so that the following output level is produced. (Figure 4)
   (Adjustment Range: 3,000 ± 90Hz).

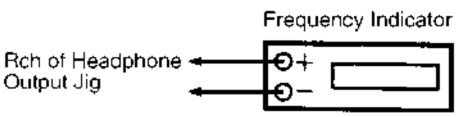


Figure 3

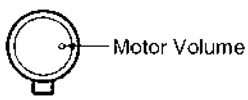


Figure 4

12.3. Bias Voltage Check

1. Connect the electrical voltmeter to Pin 3 (signal) & Pin 1 (ground) (Figure 5).
2. Set to “TAPE” mode.
3. Insert a normal blank cassette tape (QZZCRA).
4. While pressing and holding down [● REC] button, press [TAPE(TAPE ▶)] button to pause the recording mode. (Repeat pressing the buttons till the recording pause mode is activated.)
5. Check that the output level is within the standard range.
   Standard Range: 14 ± 4mV

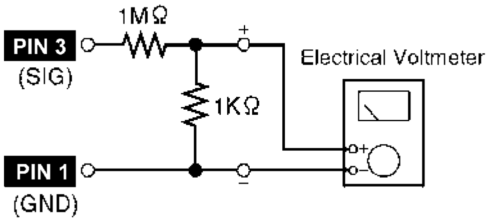


Figure 5

12.4. Bias Frequency Check

1. Connect the digital frequency counter to Pin 3 (signal) & Pin 1 (ground) (Figure 6).
2. Set to “TAPE” mode.
3. Insert a normal blank cassette tape (QZZCRA) and press [● REC] on main unit.
4. Check that the output frequency is within the standard range (standard value: 100±8kHz).

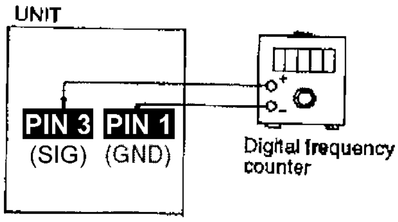


Figure 6

13 Voltage & Waveform Chart

Note:

- Indication Voltage Values are in standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in voltage values, depending on the internal impedance of the DC circuit tester.
- Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point because it may differ from actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

13.1. DVD Module P.C.B. (1/3)

REF NO.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0.1	0.1	0.1	3.4	0.1	3.4	0.1	0.1	1.7	0.1	0.2	0.7	0.7	0.6	0.1	3.4	0.4	0.8	0.1	1.3

REF NO.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.5	1.3	2.0	1.7	2.5	2.6	2.6	1.8	0.9	1.1	3.4	0.1	3.4	2.4	1.3	1.3	1.8	2.6	2.6	1.4

REF NO.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	1.9	2.7	0.1	1.3	0.1	3.3	3.3	3.4	3.4	1.7	0.1	3.4	1.9	2.8	3.0	3.4	3.4	3.4	0.6	3.4

REF NO.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	1.6	0.1	0.1	0.9	3.4	2.0	1.7	0.1	3.4	3.1	0.1	3.4	3.4	0.1	0.3	0.1	3.4	3.4	3.4	3.4

REF NO.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0.1	0.1	1.3	3.4	0.9	2.4	0.1	1.9	0.1	0.5	1.8	3.4	1.4	1.4	1.9	1.9	1.7	1.7	1.7	1.7

REF NO.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	0	0	0.3	0.1	0.3	2.1	3.3	0.1	2.3	1.7	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4

REF NO.	IC8001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
CD PLAY	1.9	2.0	1.7	1.7	0.1	1.7	1.8	3.4	0.9	0.9	0.4	3.4	2.4	1.0	1.0	2.4	0	0.4	0.9	0

REF NO.	IC8001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
CD PLAY	3.4	3.4	0	0.1	0.1	0.1	3.4	1.6	1.7	1.7	0.9	1.7	0.1	3.4	1.5	1.6	1.5	1.3	2.9	3.1

REF NO.	IC8001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
CD PLAY	2.9	2.8	3.1	2.8	0.1	3.4	2.8	3.1	3.1	2.9	2.9	3.2	0.1	3.4	2.8	3.1	3.1	2.8	2.7	2.7

REF NO.	IC8001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
CD PLAY	3.3	0.1	1.5	3.4	1.6	0.1	1.3	3.3	3.3	3.2	3.6	0.1	1.9	0.1	0.1	3.4	1.6	0.1	0.1	1.6

REF NO.	IC8001																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216				
CD PLAY	0.1	1.7	0.3	0.1	3.4	1.7	0.3	1.5	1.9	0.1	1.3	2.5	2.9	2.8	3.4	0				

REF NO.	IC8051																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.4	3.2	3.4	3.2	3.2	3.2	3.1	3.4	3.2	3.2	0.1	3.2	0.1	3.0	3.4	3.3	3.3	3.3	3.3	1.9

SA-VK880PU DVD MODULE P.C.B.

13.2. DVD Module P.C.B. (2/3)

REF NO.	IC8051																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.6	0.1	0.2	0.5	0.6	1.5	3.4	0.1	0	1.9	1.7	1.6	0.1	0.1	0.1	0.1	3.4	1.6	2.9	0

REF NO.	IC8051																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
CD PLAY	0.1	3.2	3.4	3.2	3.2	0.1	3.2	3.2	3.4	3.2	3.1	0.1	3.1	0.1						

REF NO.	IC8111																			
MODE	1	2	3	4	5	6	7													
CD PLAY	5.1	1.9	5.1	0.1	1.0	3.4	1.3													

REF NO.	IC8251																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.7	1.7	1.7	2.3	2.3	2.2	0.1	5.1	3.4	0.1	2.4	2.8	2.5	2.7	4.2	4.3	5.4	3.1	0.1	3.4

REF NO.	IC8251																			
MODE	21	22	23	24	25	26	27	28												
CD PLAY	8.9	8.8	1.8	1.7	1.7	1.7	3.4	3.4												

REF NO.	IC8421																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.7	1.7	0.9	1.7	3.1	3.4	3.4	3.4	0.9	0.1	0.1	5.2	5.2	5.2	0	0	2.6	2.6	2.6	2.6

REF NO.	IC8421																			
MODE	21	22	23	24	25	26	27	28	29	30										
CD PLAY	2.6	2.6	0	2.6	2.6	2.6	0	5.2	5.2	5.2										

REF NO.	IC8422																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	2.6	2.6	0	2.6	0	5.2	5.2	0	1.4	1.7	1.6	1.7	3.4	0	5.2	0				

REF NO.	IC8601																			
MODE	1	2	3	4																
CD PLAY	3.1	1.3	0.1	0.1																

REF NO.	IC8606																			
MODE	1	2	3	4	5															
CD PLAY	3.1	3.4	0.1	0.1	0															

REF NO.	IC8611																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0.1	0.1	0.1	0.1	3.3	3.3	0.1	3.4												

REF NO.	IC8651																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.3	2.0	1.8	2.5	2.6	2.6	1.8	0.9	1.1	0.1	3.4	3.1	3.4	3.4	1.5	3.4	1.3	1.3	1.9	2.6

SA-VK880PU DVD MODULE P.C.B.

13.3. DVD Module P.C.B. (3/3)

REF NO.	IC8651							
MODE	41	42	43	44	45	46	47	48
CD PLAY	2.6	2.5	1.3	1.9	2.7	0.1	3.4	1.5

REF NO.	IC8691				
MODE	1	2	3	4	5
CD PLAY	3.0	3.0	0.1	4.6	0.1

REF NO.	IC8695				
MODE	1	2	3	4	5
CD PLAY	0.1	2.8	2.8	5.2	4.3

REF NO.	IC9001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	2.5	2.7	1.9	1.3	2.5	2.5	1.5	1.3	0.1	2.8	1.3	1.8	2.6	2.6	1.4	1.8	2.7	2.6	3.4

REF NO.	IC9002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0.1	0.9	1.8	2.6	2.6	2.5	1.7	2.0	1.3	0.1	2.9	1.3	2.0	1.8	2.5	2.6	2.5	1.8	0.9	3.2

REF NO.	IC9003					
MODE	1	2	3	4	5	6
CD PLAY	1.6	0.1	1.7	1.7	3.4	1.7

REF NO.	IC9005							
MODE	1	2	3	4	5	6	7	8
CD PLAY	0.1	5.2	5.2	0.1	3.4	2.4	1.7	1.7

REF NO.	Q8321				Q8325				Q8331				Q8335				Q8341			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	1.0	0	0.4		1.5	0	0.9		1.1	0	0.4		1.5	0	0.9		1.5	0	0.9	

REF NO.	Q8551				Q8552				Q8561				Q8562				Q8563			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0.1	5.1	0.1		5.1	0.1	5.1		1.6	3.7	2.2		4.3	1.9	3.7		0.1	0.3	0.1	

REF NO.	Q8564				Q8565				QR8420				QR9030							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
CD PLAY	0.1	0.1	3.3		0.1	0.1	0.7		0	4.4	0.1		3.4	0.1	3.4					

SA-VK880PU DVD MODULE P.C.B.

13.4. Main P.C.B. (1/3)

REF NO.	IC2002																			
MODE	1	2	3	4	5															
CD PLAY	5.2	0	5.0	0	3.4															
STANDBY	5.2	0	5.0	0	3.4															

REF NO.	IC2101																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REF NO.	IC2101																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REF NO.	IC2101																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	0	0	0.1	0.1	1.9	0	0	0	0	0	0	0	0	0	0.1
STANDBY	0	0	0	0	0	0	0	0.1	0.1	1.9	0	0	0	0	0	0	0	0	0	0.1

REF NO.	IC2101																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	5.2	0	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	5.2	0	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REF NO.	IC2101																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	6.8	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	6.8	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REF NO.	IC2104																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0.2	0	0	6.8	0	0	0	0	0	0	-6.8	0	0	0						
STANDBY	0.2	0	0	6.8	0	0	0	0	0	0	-6.8	0	0	0						

REF NO.	IC2380																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-6.8	0	0	0	6.9												
STANDBY	0	0	0	-6.8	0	0	0	6.9												

REF NO.	IC2801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0.3	0	0	0	5.0	0	0	0	0	0.8	0.7	5.1	2.6	0	0	5.1	5.1	5.1	0	3.4
STANDBY	0.3	0	0	5.1	5.0	5.2	0	0	0	1.0	0.7	5.1	2.6	0	0	5.1	5.1	5.1	0	3.4

REF NO.	IC2801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	4.9	4.9	0	0	0	0	5.1	0	5.0	5.0	0	0	5.1	1.8	2.4	4.4	4.6	0	0	0
STANDBY	5.0	5.0	0	0	0	0	5.1	0	5.0	5.0	0	0	5.1	2.0	2.4	4.3	4.6	0	0	4.9

SA-VK880PU MAIN P.C.B.

13.5. Main P.C.B. (2/3)

REF NO.	IC2801																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	5.0	5.1	5.1	0	0	5.1	0	5.1	5.1	0	0	0	0	0	0
STANDBY	0	0	0	0	0	5.0	5.0	5.1	0	0	5.1	0	5.1	5.1	0	0	0	0	0	0

REF NO.	IC2801																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0.1	5.1	5.1	0	5.1	0	5.1	0	0	0	0	3.2	0.5	4.4	0	0	0	0.2	0	0
STANDBY	0.1	5.1	5.1	0	5.1	0	5.1	0	0	0	0	3.2	0.6	4.4	0	0	0	0.2	0	0

REF NO.	IC2801																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0.2	0	5.1	0.1	5.0	0.1	5.1	3.7	2.6	5.1	3.5	5.1	5.1	3.1	5.1	0	5.1	5.1	5.1	0
STANDBY	0.2	0	5.1	0.2	5.0	0.2	5.1	3.7	2.6	5.1	3.5	5.1	5.1	3.1	5.1	0	5.1	5.1	5.1	0

REF NO.	IC2802																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	5.1	0	0	1.8	1.8	0	0												
STANDBY	0	5.1	0	0	1.8	1.8	0	0												

REF NO.	IC2900																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	5.1	0	0	2.2	4.9	1.6	0	1.6	2.2	0	1.7	0	2.2	4.9	2.2	5.1	2.3	2.3	0	2.3
STANDBY	5.1	0	0	2.2	4.9	1.5	0	1.5	2.2	0	1.5	0	2.2	4.9	2.2	5.1	2.3	2.3	0	2.3

REF NO.	IC2900																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
CD PLAY	2.3	0	0	1.6	0	1.5	0	0	1.6	1.6	0	2.3								
STANDBY	2.3	0	0	1.3	0	1.3	0	0	1.4	1.4	0	2.3								

REF NO.	IC4000																			
MODE	1	2	3	4	5															
CD PLAY	11.8	5.2	0	1.0	2.5															
STANDBY	12.6	5.2	0	1.0	2.5															

REF NO.	IC6931																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	5.3	2.7	0	0	2.8	2.7	0.6	0.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7				
STANDBY	5.3	2.7	0	0	2.8	2.7	0.6	0.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7				

REF NO.	Q1306				Q1307				Q1315				Q2002				Q2003			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	0.6		0	5.1	0		9.1	0	9.1		9.1	-1.4	9.1		0	9.1	0	
STANDBY	0	0	0.6		0	5.1	0		9.2	0	9.1		9.2	-1.2	9.2		0	9.2	0	

REF NO.	Q2004				Q2005				Q2011				Q2012				Q2051			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	1.6	0		3.4	1.7	5.1		0	9.1	0		0	9.1	0		5.2	-6.1	4.6	
STANDBY	0	1.7	0		3.4	1.7	5.1		0	9.2	0		0	9.2	0		2.5	2.4	0.9	

SA-VK880PU MAIN P.C.B.

13.6. Main P.C.B. (3/3)

REF NO.	Q2052							Q2221							Q2300					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		E	C	B			
CD PLAY	0	-6.1	0	0	-6.1	0		0	-4.6	0	0	-4.6	0		-5.3	-0.4	-4.6			
STANDBY	0	0.8	0	0	0.8	0		0	0.7	0	0	0.7	0		-5.3	-0.4	-4.6			
REF NO.	Q2340							Q2342				Q2370				Q2371				
MODE	1	2	3	4	5	6		E	C	B		E	C	B		E	C	B		
CD PLAY	0	-4.6	0	0	-4.6	0		0	-4.6	0		0	0	0.7		1.4	1.4	0		
STANDBY	0	0.7	0	0	0.7	0		2.0	2.0	0		0	0	0.7		1.4	1.4	0		
REF NO.	Q2600				Q2601				Q2602				Q2605				Q2701			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	5.1	0		0	-6.8	0		0	0	-6.8		0	5.1	0		0	0	5.0	
STANDBY	0	5.1	0		0	-6.8	0		0	0	-6.8		0	5.1	0		0	0	5.0	
REF NO.	Q2702				Q2800				Q2801				Q2810				Q2900			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	5.2	5.1	4.4		3.7	3.7	5.0		0	0	0.8		5.0	9.1	5.6		0	11.6	0	
STANDBY	5.2	5.1	4.4		3.7	3.7	5.0		0	0	0.8		5.0	9.2	5.6		0	12.4	0	
REF NO.	Q2912				Q2942				Q2943				Q2944				Q2948			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	4.4		9.1	6.7	9.1		0	9.1	0.1		11.8	16.4	12.3		0	0.1	0.3	
STANDBY	0	5.2	0		9.2	6.7	9.2		0	9.1	0.1		11.8	16.6	12.4		0	0.1	0.3	
REF NO.	Q2949				Q4001				Q4002				Q4003				Q4004			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	5.1	0.1		5.2	5.1	5.1		-9.1	-11.6	-9.7		9.1	11.7	9.8		7.0	9.4	7.6	
STANDBY	0	5.1	0.1		5.2	5.1	5.1		-9.1	-11.6	-9.7		9.1	12.6	9.8		7.0	9.4	7.6	
REF NO.	Q4006				Q4007				Q4008				Q5100				Q5102			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	5.3	1.5	5.0		7.5	9.1	8.2		7.6	9.4	8.3		9.1	11.7	9.8		0	5.1	0	
STANDBY	5.3	1.6	5.0		7.5	9.2	8.2		7.6	9.5	8.3		9.2	12.6	9.8		0	5.2	0	
REF NO.	Q6906				Q6907				Q6908				Q8031				QR4003			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	0		0	0	0		0	0	0		0	0	-3.4		0.3	5.1	0	
STANDBY	0	0	0		0	0	0		0	0	0		0	0	0.7		0.4	5.1	0	
REF NO.	QR4004				QR8031															
MODE	E	C	B		E	C	B													
CD PLAY	0	5.1	0.3		0	-3.4	0													
STANDBY	0	5.1	0.4		1.8	1.8	0													

SA-VK880PU MAIN P.C.B.

13.7. Panel P.C.B.

REF NO. / MODE	IC6601																			
	1	2	3	4	5	6	7		9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	4.9	4.9	4.9	2.8	1.9	0.6	4.0	3.2	0	0	0	5.0	-15.5	-15.4	-19.5	-23.5	-21.5	-23.5	-17.5
STANDBY	0	4.9	4.9	4.9	2.8	1.6	0.6	4.4	3.2	0	0	0	5.0	-15.5	-15.5	-11.5	-21.6	-23.6	-21.6	-15.6

REF NO. / MODE	IC6601																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-13.5	-21.5	-21.5	-19.6	-15.4	-11.5	-15.5	-23.6	-17.5	-24.1	-21.9	-21.8	-21.9	-21.9	-21.8	-21.8	-21.8	-21.8	-21.8	-21.8
STANDBY	-13.5	-21.6	-21.6	-19.6	-15.5	-11.5	-15.5	-23.6	-21.6	-24.2	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9

REF NO. / MODE	IC6601			
	41	42	43	44
CD PLAY	-21.8	-21.8	-5.0	0
STANDBY	-21.9	-21.9	-5.0	0

REF NO. / MODE	Q6641		
	E	C	B
CD PLAY	0	0.1	2.9
STANDBY	0	0.1	2.9

SA-VK880PU PANEL P.C.B.

13.8. Deck P.C.B.

REF NO. / MODE	IC1000				
	1	2	3	4	5
CD PLAY	6.2	0	0	0	0
STANDBY	6.2	0	0	0	0

REF NO. / MODE	IC1001																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0.1	0.7	5.2	4.4	0	5.1	0	0.1	0.1	6.1	0	9.1	0	0	0.1	0	3.8	0.3	4.4	5.2
STANDBY	0.1	0.7	5.2	4.4	0	5.1	0	0.1	0.1	6.2	0	9.2	0	0	0.1	0	3.8	0.3	4.4	5.2

REF NO. / MODE	IC1001	
	21	22
CD PLAY	0.7	0.1
STANDBY	0.7	0.1

REF NO. / MODE	Q1303				Q1304				Q1309				Q1310				Q1312		
	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	6.3	0.1		6.3	0.1	6.2		0	9.1	0.1		0	9.1	0.1		0	0.1	0
STANDBY	0	6.3	0.1		6.3	0.1	6.2		0	9.2	0.1		0	9.2	0.1		0	0	0

REF NO. / MODE	Q1314				Q1316				Q1317		
	E	C	B		E	C	B		E	C	B
CD PLAY	9.1	-1.2	9.1		0	7.5	-1.3		0	0	0.1
STANDBY	9.2	-1.2	9.2		0	7.6	-1.3		0	0	0.1

SA-VK880PU DECK P.C.B.

13.9. Mic P.C.B.

REF NO. / MODE	IC6000													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
CD PLAY	4.6	4.6	4.6	4.6	4.5	4.6	4.6	0	9.1	4.5	0.1	0	9.1	4.5
STANDBY	4.6	4.6	4.6	4.6	4.5	4.6	4.6	0	9.1	4.5	0.1	0	9.1	4.5

SA-VK880PU MIC P.C.B.

13.10. D-Amp P.C.B. (1/2)

REF NO.	IC5000																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	8.9	0	-29.3	-19.2	-29.3	-0.1	8.9	29.3	-29.0	-29.0	0	29.0
STANDBY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	8.9	0.1	-29.3	-19.2	-29.3	-0.1	8.9	29.3	-29.0	-29.0	0	29.0

REF NO.	IC5000																			
MODE	21	22	23																	
CD PLAY	0	0	2.5																	
STANDBY	0	0	2.5																	

REF NO.	IC5200																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	8.9	0	-29.3	-19.2	-29.3	-0.1	8.9	29.3	-29.0	-29.0	0	29.0
STANDBY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	8.9	0	-29.3	-19.2	-29.3	-0.1	8.9	29.3	-29.0	-29.0	0	29.0

REF NO.	IC5200																			
MODE	21	22	23																	
CD PLAY	0	0	2.6																	
STANDBY	0	0	2.6																	

REF NO.	IC5300																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	8.9	0	-29.3	-19.2	-29.3	-0.1	8.9	29.3	-29.0	-29.0	0	29.0
STANDBY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	8.9	0	-29.3	-19.2	-29.3	-0.1	8.9	29.3	-29.0	-29.0	0	29.0

REF NO.	IC5300																			
MODE	21	22	23																	
CD PLAY	0	0	2.5																	
STANDBY	0	0	2.5																	

REF NO.	IC5400																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	8.9	-0.1	-29.3	-19.2	-29.3	-0.1	9.0	29.3	-29.0	-29.0	0	29.0
STANDBY	2.5	0	0	29.0	0	-29.0	-20.6	29.3	9.0	-0.1	-29.3	-19.2	-29.3	-0.1	9.0	29.3	-29.0	-29.0	0	29.0

REF NO.	IC5400																			
MODE	21	22	23																	
CD PLAY	0	0	2.6																	
STANDBY	0	0	2.6																	

REF NO.	IC5500																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0	5.2	4.9	0	2.7	2.2	0	2.5	2.6	2.6	2.5	2.5	2.6	5.2						
STANDBY	0	5.2	4.9	0	2.7	2.2	0	2.5	2.6	2.6	2.5	2.5	2.6	5.2						

REF NO.	Q5101				Q5102				Q5601				Q5602				Q5603			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	5.2	0		0	5.1	0		0	0	0.7		0	0.1	0.6		5.2	5.2	4.5	
STANDBY	0	5.2	0		0	5.2	0		0	0	0.7		0	0.1	0.7		5.2	5.2	4.5	

SA-VK880PU D-AMP P.C.B.

13.11. D-Amp P.C.B. (2/2)

REF NO.	Q5604		
MODE	E	C	B
CD PLAY	0	0	0.7
STANDBY	0	0	0.7

SA-VK880PU D-AMP P.C.B.

13.12. SMPS P.C.B.

REF NO.	IC5701						
MODE	1	2	3	4	5	6	7
CD PLAY	162.0	0	0	19.3	0.1	1.4	0.5
STANDBY	162.0	0	0	19.3	0.1	1.4	0.5

REF NO.	IC5799							
MODE	1	2	3	4	5	6	7	8
CD PLAY	6.0	1.6	1.8	20.3	162.2	0	0	0
STANDBY	6.0	1.6	2.0	20.3	163.0	0	0	0

REF NO.	IC5801		
MODE	1	2	3
CD PLAY	-2.2	-29.5	-26.8
STANDBY	-2.2	-29.5	-26.8

REF NO.	IC5899		
MODE	1	2	3
CD PLAY	4.2	0	2.5
STANDBY	4.2	0	2.5

REF NO.	Q5720				Q5721				Q5722				Q5802				Q5803		
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	5.9	6.5	5.6		19.9	19.9	19.2		0	17.0	0.1		-21.9	-2.2	-22.0		0	5.8	0
STANDBY	5.9	6.6	5.6		19.9	19.9	19.2		0	16.8	0.1		-21.8	-2.2	-22.0		0	5.8	0

REF NO.	Q5860				Q5861				Q5862				Q5898				QR5801		
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	1.3	0	0.7		0	0	0.7		0	5.2	0		0	3.2	0.5		0	5.0	0
STANDBY	1.3	0	0.7		0	0	0.7		0	5.2	0		0	3.2	0.5		0	5.0	0

REF NO.	QR5802				QR5810		
MODE	E	C	B		E	C	B
CD PLAY	0	4.5	0		0	0.1	5
STANDBY	1.5	1.5	0		0	0	5

SA-VK880PU SMPS P.C.B.

13.13. Deck Mechanism P.C.B.

REF NO.	IC971			
MODE	1	2	3	4
CD PLAY	5.1	4.0	2.8	5.1
STANDBY	5.1	4.0	2.8	5.1

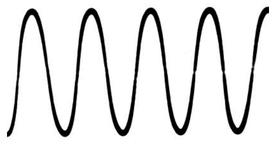
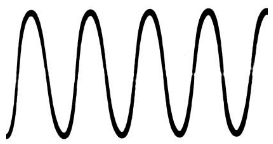
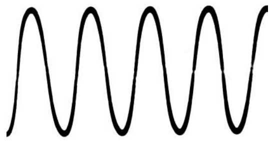
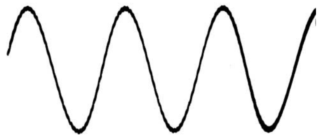
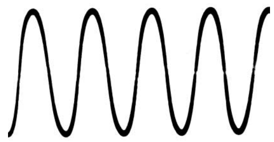
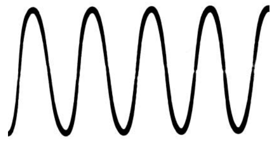
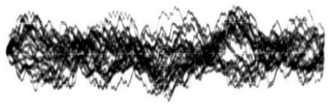
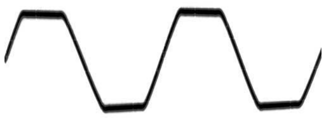
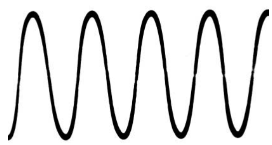
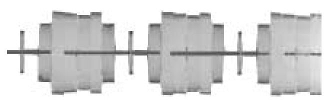
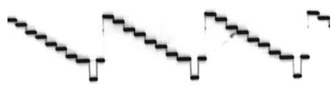
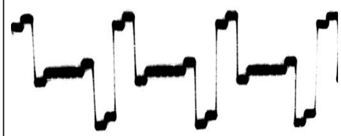
SA-VK880PU DECK MECHANISM P.C.B.

13.14. Volume P.C.B.

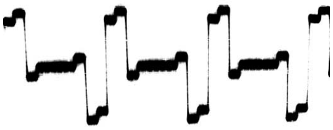
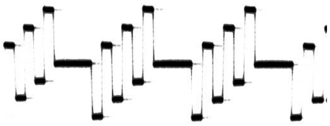
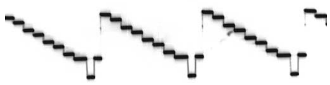
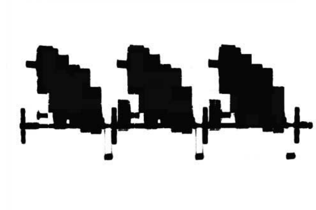
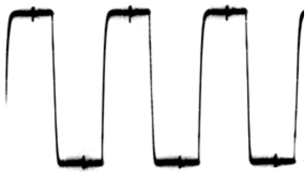
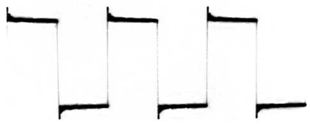
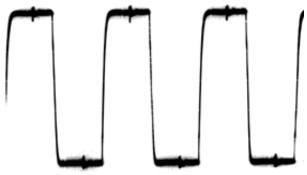
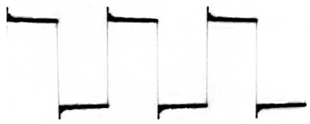
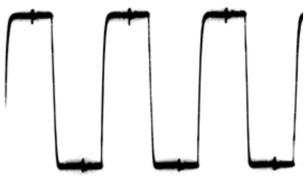
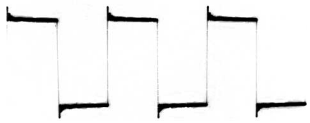
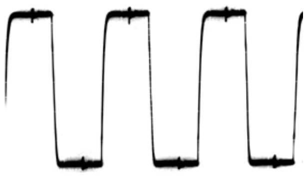
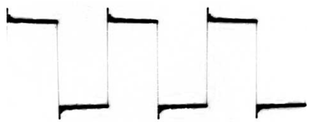
REF NO. / MODE	Q6511		
	E	C	B
CD PLAY	0	0	5.1
STANDBY	0	0	5.1

SA-VK880PU VOLUME P.C.B.

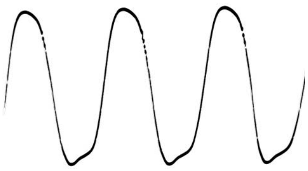
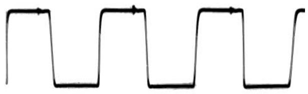
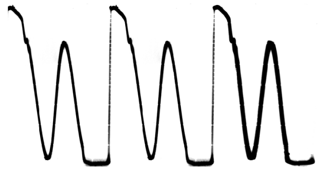
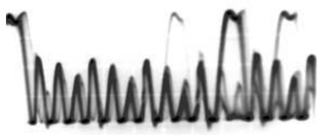
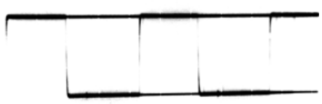
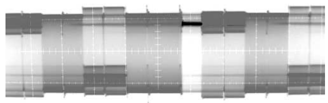
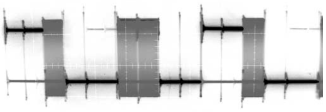
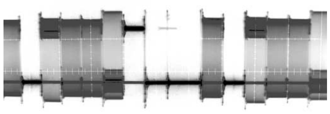
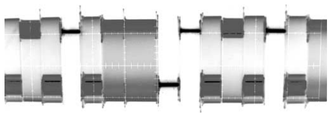
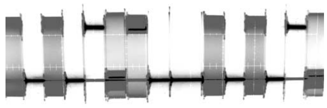
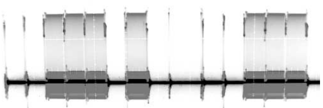
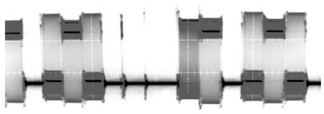
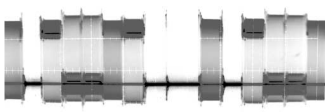
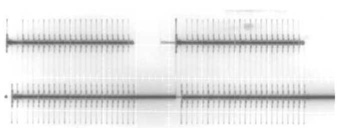
13.15. Waveform Table (1/4)

WF No. IC2101-14 (PLAY)  0.32Vp-p(1msec/div)	WF No. IC2101-15,16,17 (PLAY)  1.08Vp-p(1msec/div)	WF No. IC2101-18 (PLAY)  1.12Vp-p(1msec/div)	WF No. IC2101-19 (PLAY)  0.34Vp-p(2msec/div)
WF No. IC2101-27,30,41 (PLAY)  0.8Vp-p(1msec/div)	WF No. IC2101-44 (PLAY)  10.8Vp-p(5msec/div)	WF No. IC2101-77 (PLAY)  0.8Vp-p(2msec/div)	WF No. IC2101-78,79 (PLAY)  1.6Vp-p(200usec/div)
WF No. IC2101-80 (PLAY)  1.8Vp-p(200usec/div)	WF No. IC2101-81,82 (PLAY)  2.8Vp-p(200usec/div)	WF No. IC2101-91,92 (PLAY)  1.5Vp-p(500usec/div)	WF No. IC2101-95 (PLAY)  2.8Vp-p(200usec/div)
WF No. IC2101-96 (PLAY)  0.4Vp-p(200usec/div)	WF No. IC2101-99 (PLAY)  6.8Vp-p(200usec/div)	WF No. IC2101-100 (PLAY)  1Vp-p(200usec/div)	WF No. IC2801-13 (PLAY)  5Vp-p(50nsec/div)
WF No. IC2801-15 (PLAY)  3.2Vp-p(20nsec/div)	WF No. IC2900-4 (PLAY)  1Vp-p(20usec/div)	WF No. IC2900-8,11 (PLAY)  1.1Vp-p(20usec/div)	WF No. IC2900-15 (PLAY)  0.76Vp-p(20usec/div)

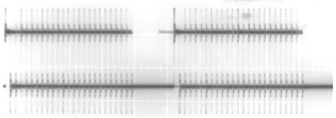
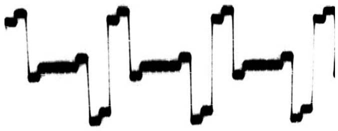
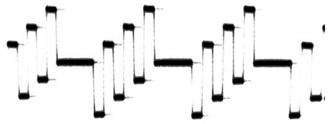
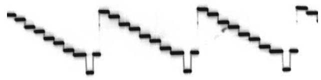
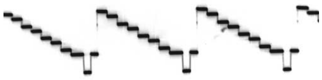
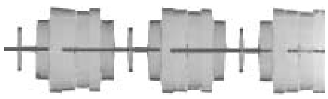
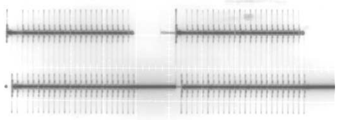
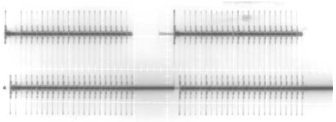
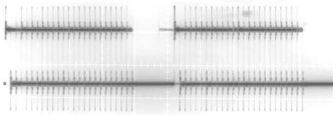
13.16. Waveform Table (2/4)

WF No. IC2900-18 (PLAY)  1.5Vp-p(20usec/div)	WF No. IC2900-21 (PLAY)  1.5Vp-p(20usec/div)	WF No. IC2900-24 (PLAY)  2Vp-p(20usec/div)	WF No. IC2900-30 (PLAY)  2.4Vp-p(20usec/div)
WF No. IC5000-1 (PLAY)  5.6Vp-p(1usec/div)	WF No. IC5000-2 (PLAY)  0.84Vp-p(200usec/div)	WF No. IC5000-10,14 (PLAY)  80Vp-p(1usec/div)	WF No. IC5000-21 (PLAY)  0.84Vp-p(200usec/div)
WF No. IC5200-1 (PLAY)  5.6Vp-p(1usec/div)	WF No. IC5200-2 (PLAY)  0.84Vp-p(200usec/div)	WF No. IC5200-10,14 (PLAY)  80Vp-p(1usec/div)	WF No. IC5200-21 (PLAY)  0.84Vp-p(200usec/div)
WF No. IC5300-1 (PLAY)  5.6Vp-p(1usec/div)	WF No. IC5300-2 (PLAY)  0.84Vp-p(200usec/div)	WF No. IC5300-10,14 (PLAY)  80Vp-p(1usec/div)	WF No. IC5300-21 (PLAY)  0.84Vp-p(200usec/div)
WF No. IC5400-1 (PLAY)  5.6Vp-p(1usec/div)	WF No. IC5400-2 (PLAY)  0.84Vp-p(200usec/div)	WF No. IC5400-10,14 (PLAY)  80Vp-p(1usec/div)	WF No. IC5400-21 (PLAY)  0.84Vp-p(200usec/div)

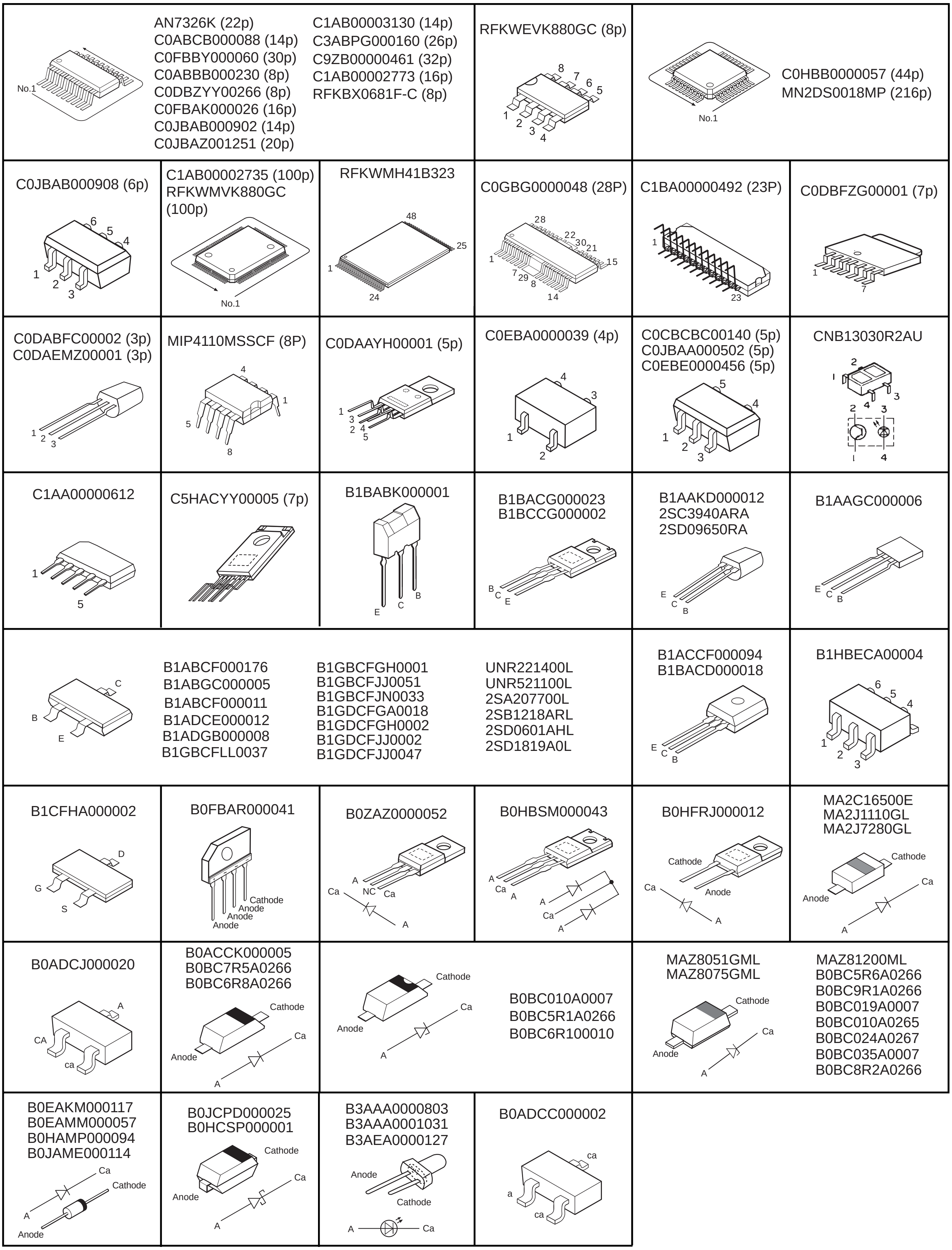
13.17. Waveform Table (3/4)

WF No. IC5500-4 (PLAY)  6.8Vp-p(5msec/div)	WF No. IC5500-6 (PLAY)  5.2Vp-p(500nsec/div)	WF No. IC5500-8 (PLAY)  5.6Vp-p(500nsec/div)	WF No. IC5701-1 (PLAY)  400Vp-p(2usec/div)
WF No. IC5701-4,6 (PLAY)  2Vp-p(5usec/div)	WF No. IC5799-2 (PLAY)  2Vp-p(5usec/div)	WF No. IC5799-3 (PLAY)  9.6Vp-p(5usec/div)	WF No. IC5799-5 (PLAY)  240Vp-p(50usec/div)
WF No. IC5899-1,2,3 (PLAY)  1.65Vp-p(5msec/div)	WF No. IC6601-5 (PLAY)  1.5Vp-p(1usec/div)	WF No. IC6601-8 (PLAY)  5.6Vp-p(2usec/div)	WF No. IC8001-9 (PLAY)  6.4Vp-p(5usec/div)
WF No. IC8001-10 (PLAY)  6.4Vp-p(5usec/div)	WF No. IC8001-11 (PLAY)  6Vp-p(5usec/div)	WF No. IC8001-12 (PLAY)  6Vp-p(5usec/div)	WF No. IC8001-13 (PLAY)  6.4Vp-p(5usec/div)
WF No. IC8001-14 (PLAY)  6.4Vp-p(5usec/div)	WF No. IC8001-17 (PLAY)  6Vp-p(5usec/div)	WF No. IC8001-18 (PLAY)  6.4Vp-p(5usec/div)	WF No. IC8001-59 (PLAY)  2.4Vp-p(2usec/div)

13.18. Waveform Table (4/4)

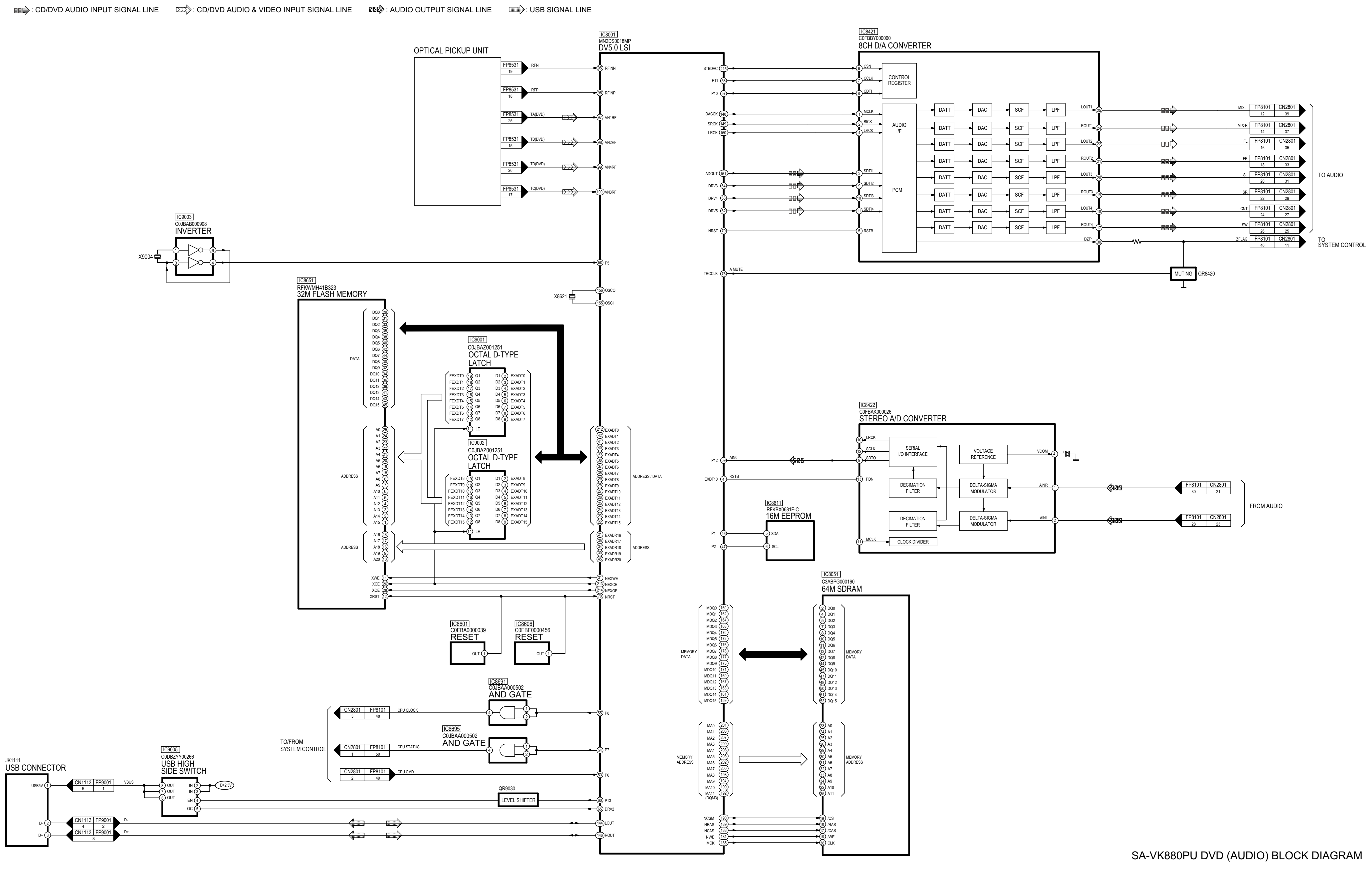
WF No. IC8001-62,63,64 (PLAY)  5.6Vp-p(2usec/div)	WF No. IC8001-129 (PLAY)  0.72Vp-p(20usec/div)	WF No. IC8001-130 (PLAY)  0.72Vp-p(20usec/div)	WF No. IC8001-131 (PLAY)  0.42Vp-p(20usec/div)
WF No. IC8001-138 (PLAY)  1.05Vp-p(20usec/div)	WF No. IC8001-139 (PLAY)  0.9Vp-p(20usec/div)	WF No. IC8001-151 (PLAY)  6Vp-p(2usec/div)	WF No. IC8001-152 (PLAY)  6.4Vp-p(500nsec/div)
WF No. IC8421-3,9,10,11 (PLAY)  4.8Vp-p(2usec/div)	WF No. IC8421-17 (PLAY)  0.092Vp-p(2msec/div)	WF No. IC8421-18,19,20,21, 22 (PLAY)  0.76Vp-p(500usec/div)	WF No. IC8421-24 (PLAY)  2.3Vp-p(500usec/div)
WF No. IC8421-25 (PLAY)  0.24Vp-p(500usec/div)	WF No. IC8422-1 (PLAY)  1.5Vp-p(500usec/div)	WF No. IC8422-2 (PLAY)  0.15Vp-p(500usec/div)	WF No. IC8422-9 (PLAY)  7.6Vp-p(2usec/div)

14 Illustration of ICs, Transistor and Diode

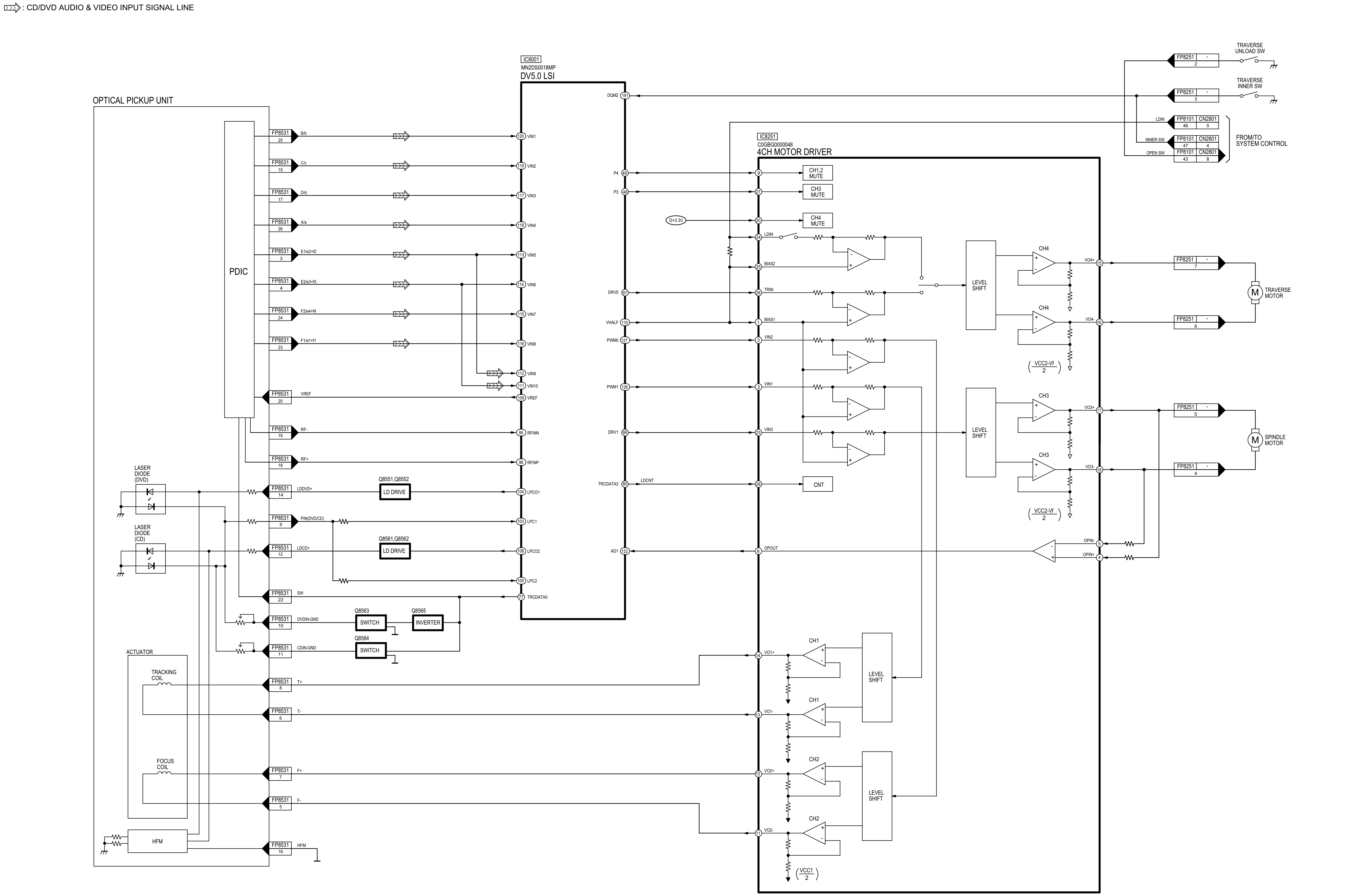


15 Block Diagram

15.1. DVD (Audio)

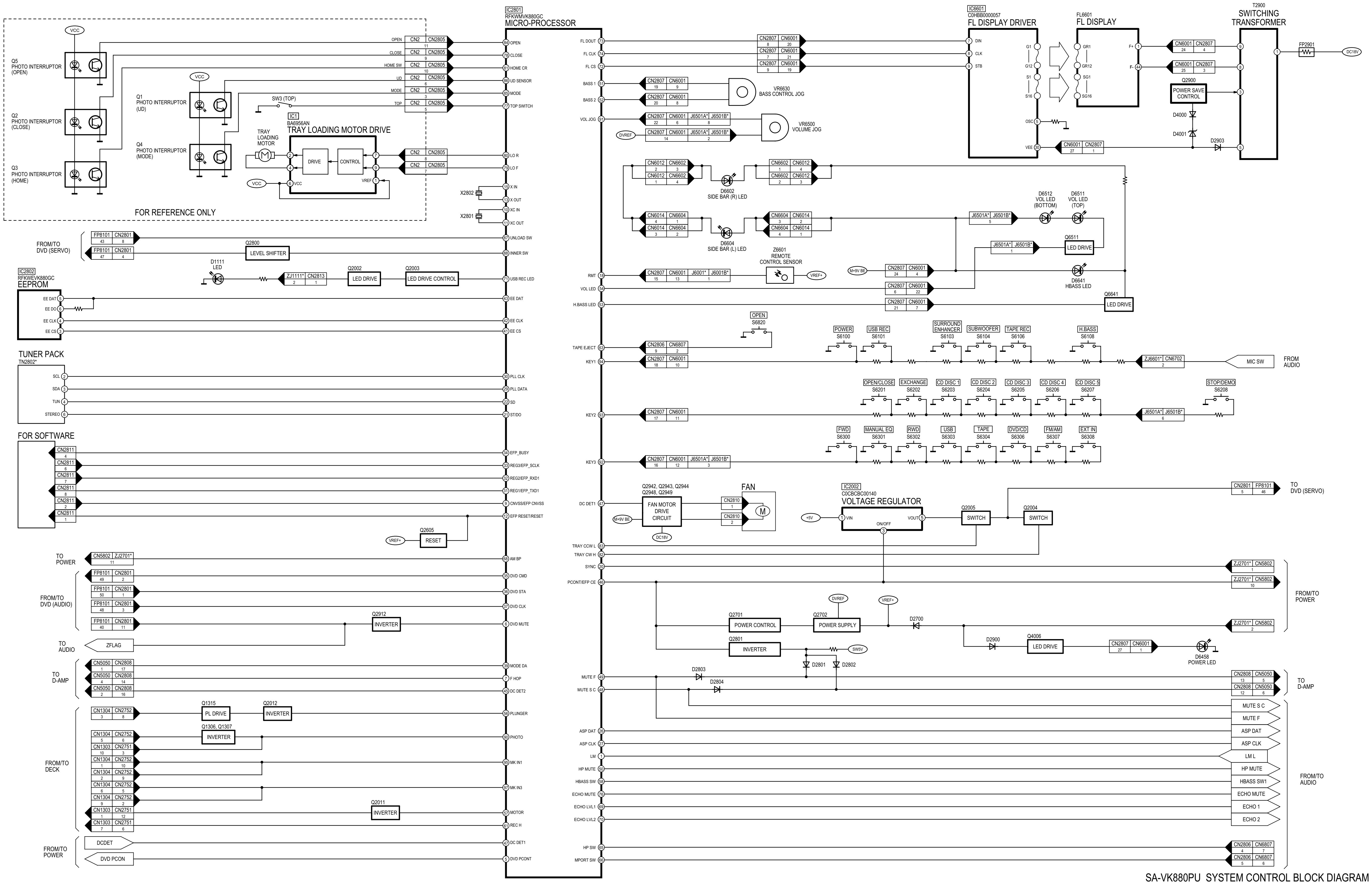


15.2. DVD (Servo)



SA-VK880PU DVD (SERVO) BLOCK DIAGRAM

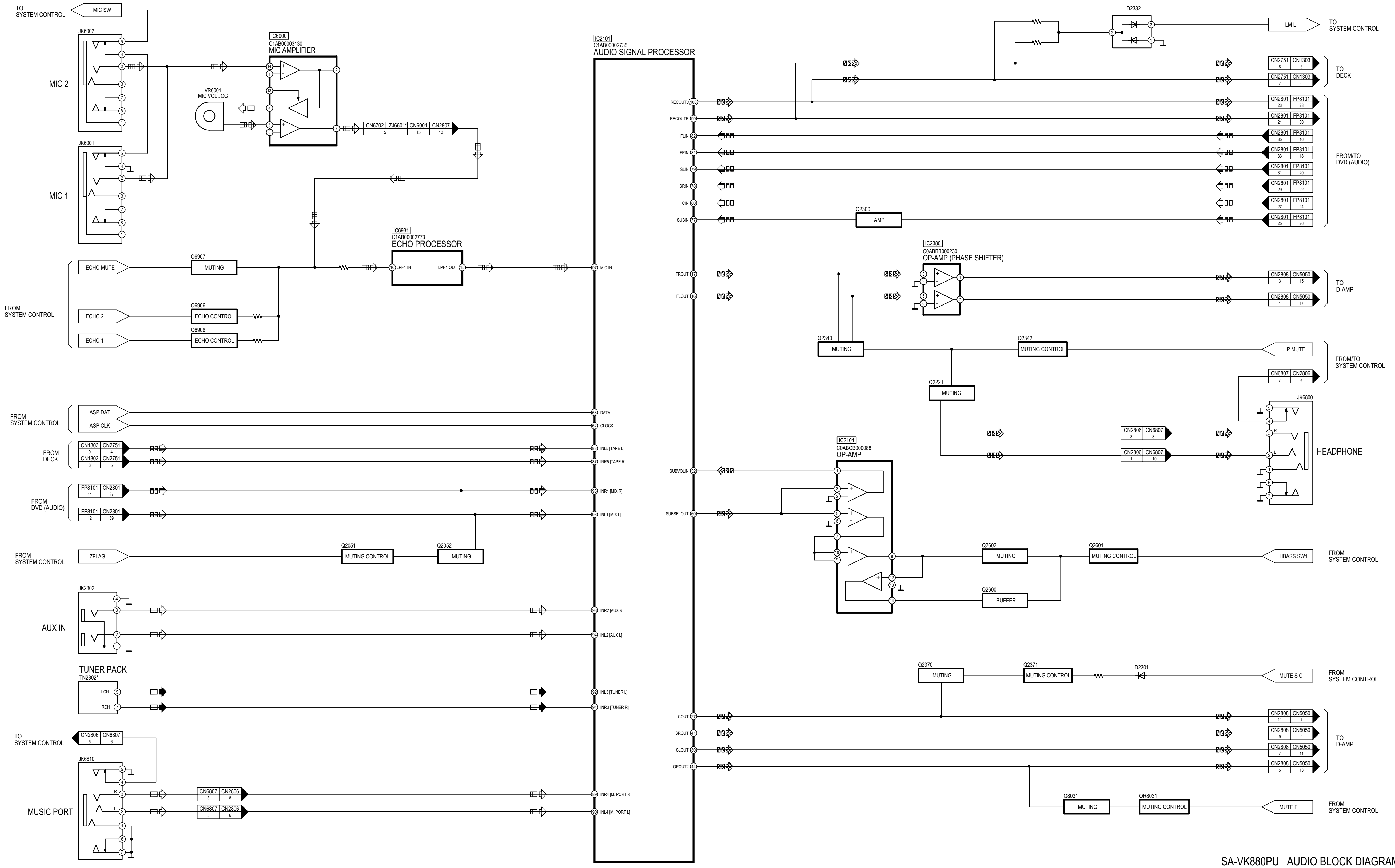
15.3. System Control



SA-VK880PU SYSTEM CONTROL BLOCK DIAGRAM

15.4. Audio

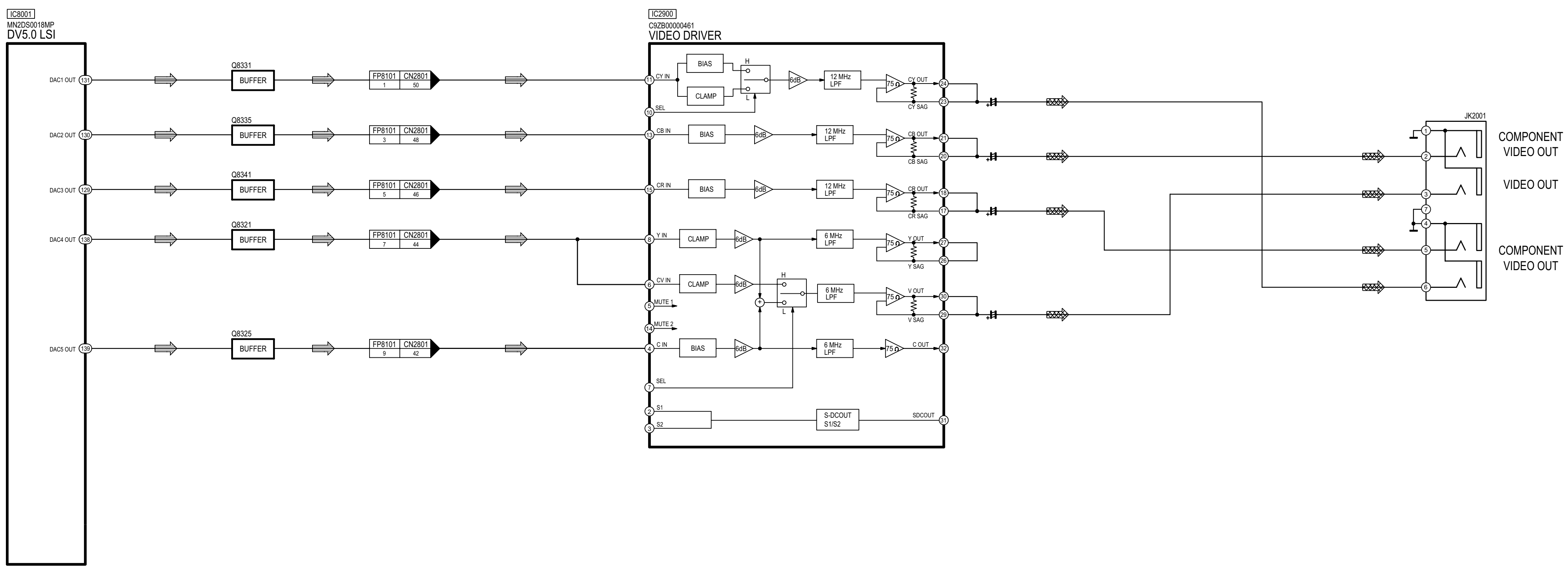
: CD/DVD/TAPE AUDIO INPUT SIGNAL LINE : AUX/MIC/MUSIC PORT AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : AM/FM SIGNAL LINE



SA-VK880PU AUDIO BLOCK DIAGRAM

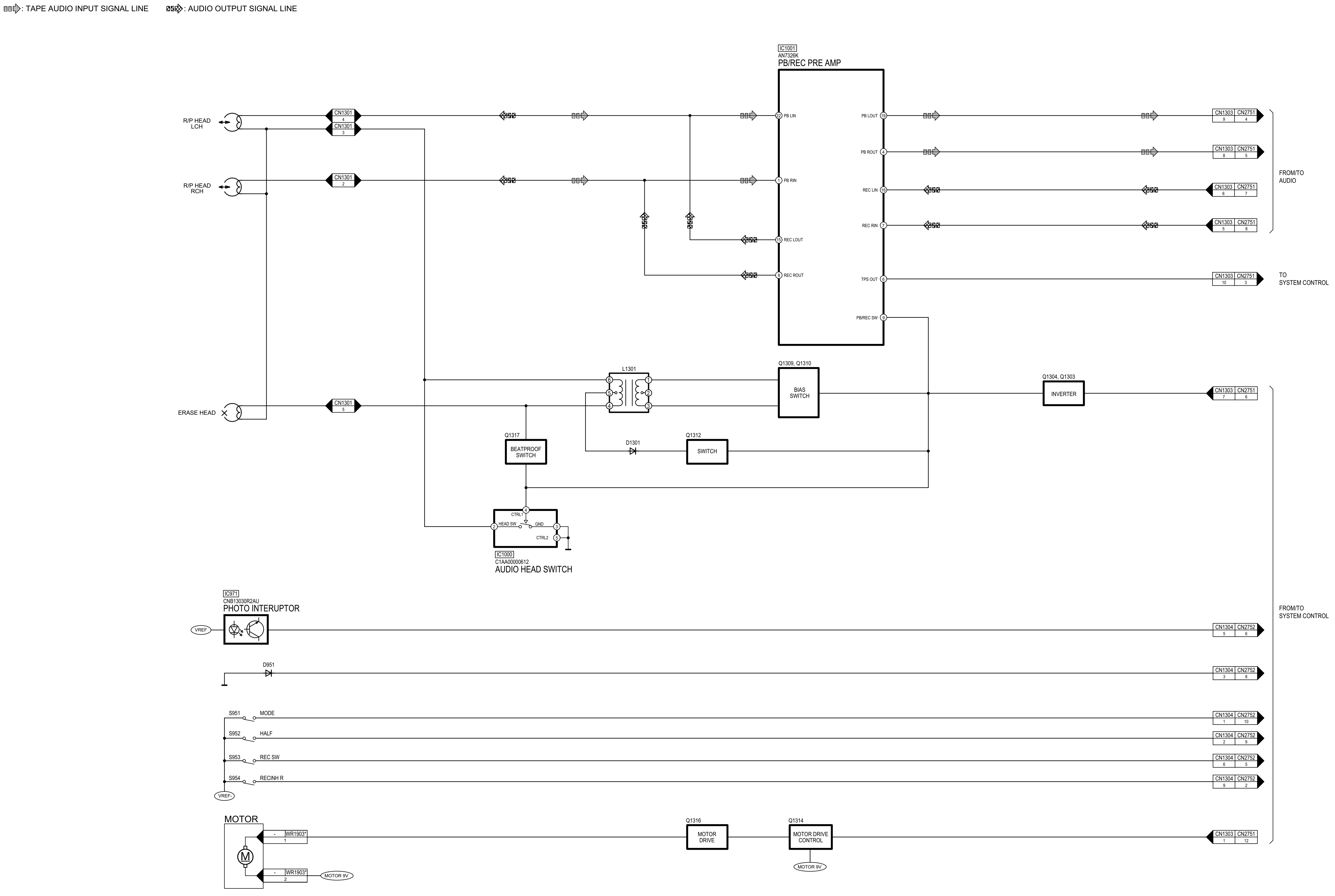
15.5. Video

: CD/DVD VIDEO INPUT SIGNAL LINE : VIDEO OUTPUT SIGNAL LINE



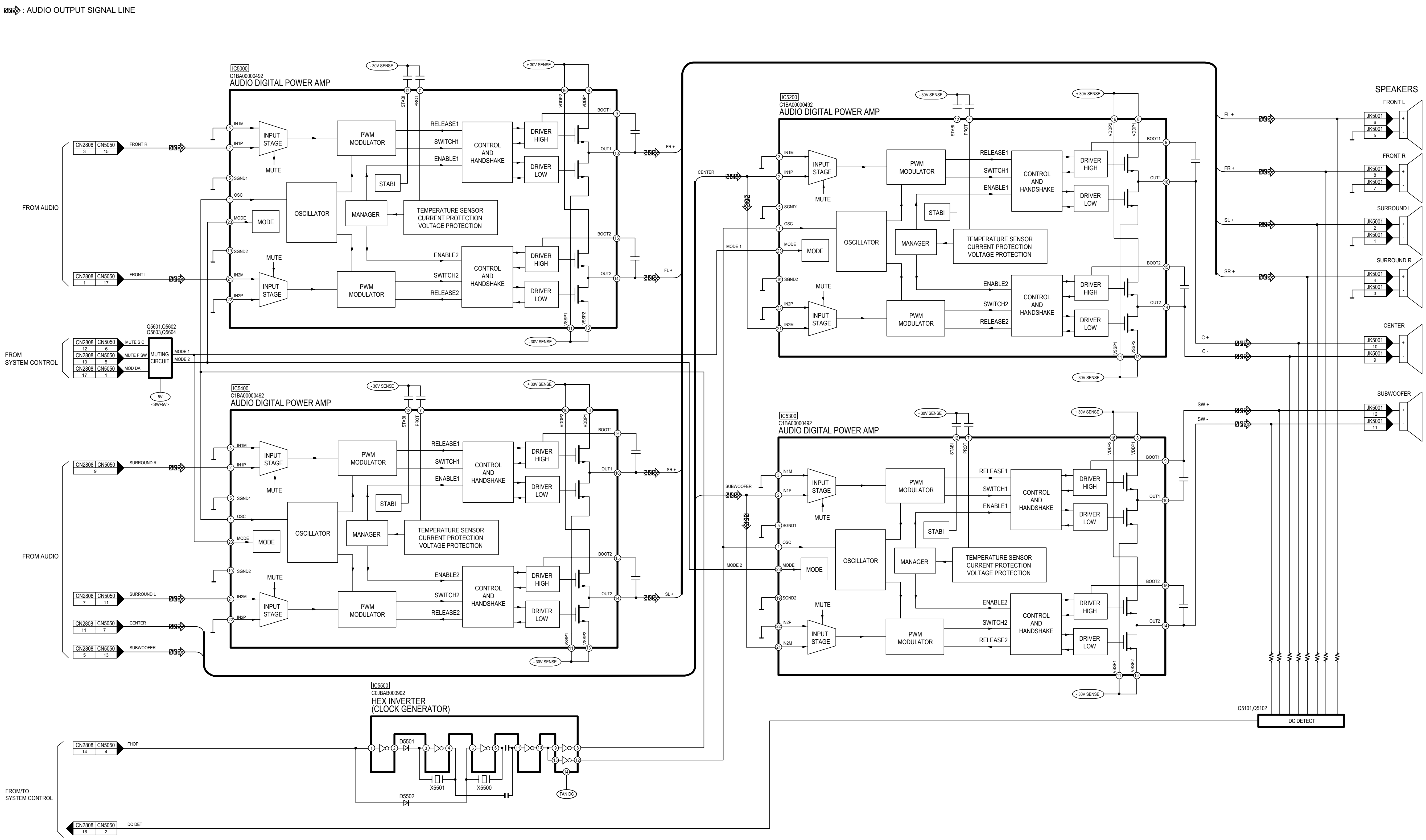
SA-VK880PU VIDEO BLOCK DIAGRAM

15.6. Deck



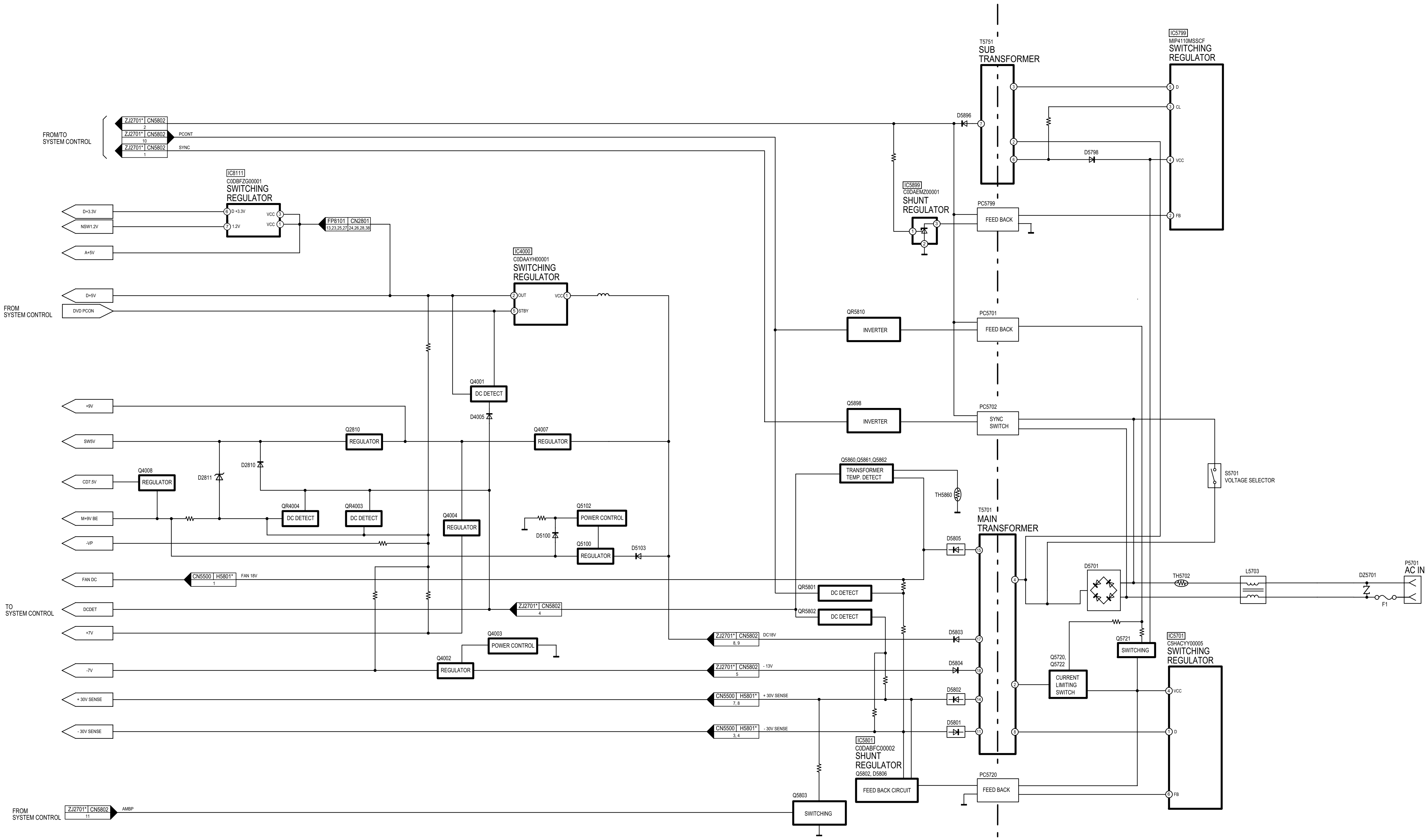
SA-VK880PU DECK BLOCK DIAGRAM

15.7. D-Amp



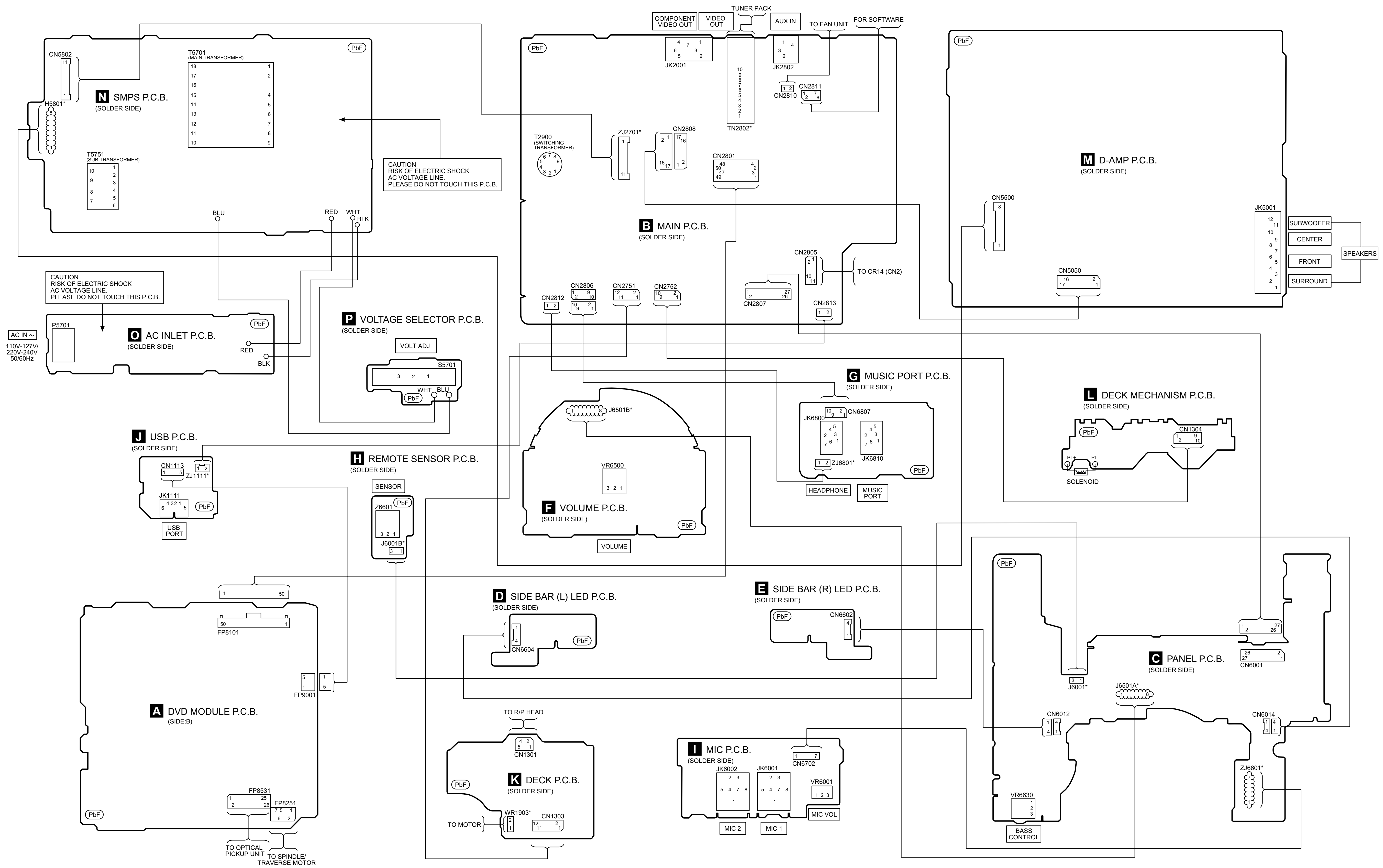
SA-VK880PU D-AMP BLOCK DIAGRAM

15.8. Power



SA-VK880PU POWER BLOCK DIAGRAM

16 Wiring Connection Diagram



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-VK880PU WIRING CONNECTION

17 Schematic Diagram Notes

- **This schematic diagram may be modified at any time with the development of new technology.**

Notes:

S951:	Mode Switch.
S952:	Half Switch.
S953:	REC Switch.
S954:	RECINH_R Switch.
S5701:	Voltage Selector Switch.
S6100:	Power (⏻/I) Switch.
S6101:	USB REC.
S6103:	Surround Enhancer Switch.
S6104:	Subwoofer Switch.
S6106:	Tape REC (TAPE ●REC) Switch.
S6108:	H.Bass Switch.
S6201:	Open/Close (▲) Switch.
S6202:	Exchange (▲) Switch.
S6203:	Disc 1 (1 ▶) Switch.
S6204:	Disc 2 (2 ▶) Switch.
S6205:	Disc 3 (3 ▶) Switch.
S6206:	Disc 4 (4 ▶) Switch.
S6207:	Disc 5 (5 ▶) Switch.
S6208:	Stop/-Demo (■STOP/DEMO) Switch.
S6300:	∧/Forward (∧/FF/▶▶I) Switch.
S6301:	Manual EQ Switch.
S6302:	∨/Rewind (∨/REW/I◀◀) Switch.
S6303:	USB (USB ▶) Switch.
S6304:	Tape (◀ ▶) Switch.
S6306:	DVD/CD Switch.
S6307:	FM/AM Switch.
S6308:	EXT-IN Switch.
S6820:	Open (▲) Switch.
VR6001:	MIC VOL Jog.
VR6500:	Volume Jog.
VR6630:	Bass Control Jog.

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardant (resistors), high quality sound (capacitors), low-noise (resistors), etc are used.

  When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- In case of AC rated voltage Capacitors, the part no. and values will be indicated in the Schematic Diagram.

  AC rated voltage capacitors:

  C5700, C5701, C5703, C5704, C5705, C5706, C5707

- **Resistor**

  Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).

- **Capacitor**

  Unit of capacitance is µF, unless otherwise noted. F=Farads, pF=pico-Farad.

- **Coil**

  Unit of inductance is H, unless otherwise noted.

- *****

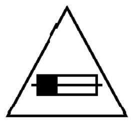
  REF IS FOR INDICATION ONLY.

- Voltage and signal line

——	: +B signal line
---	: -B signal line
⇨	: USB signal line
⇨	: CD/DVD/Tape Audio Input signal line
⇨	: CD/DVD Video Input signal line
⇨	: CD/DVD Audio & Video Input signal line
➡	: AM/FM signal line
⇨	: AUX/Mic /Music Port Audio Input signal line
⇨	: Audio Output Signal Line
⇨	: Video Output Signal Line

- GA/GS only

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 T8AH 250V FUSE



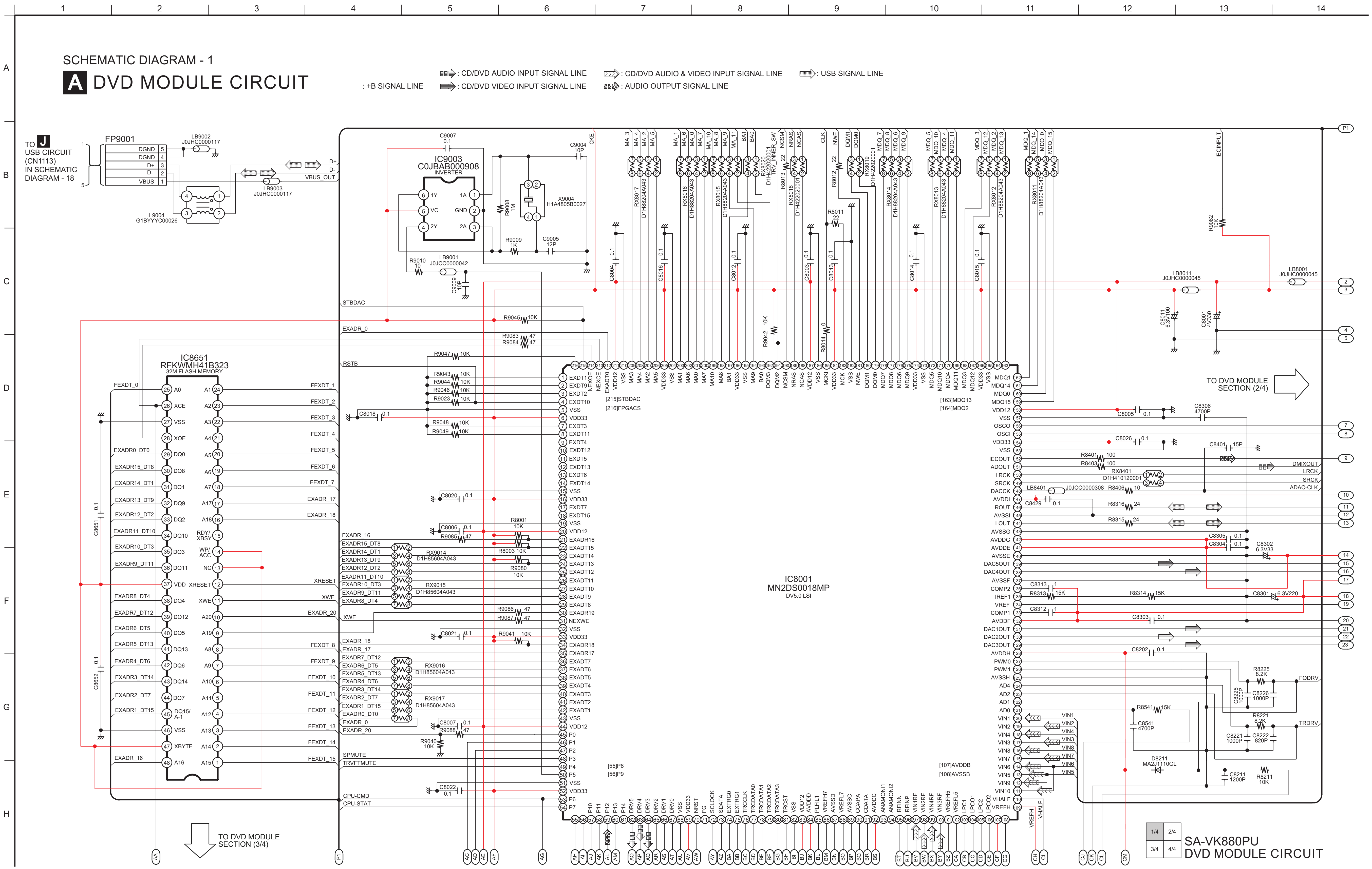
RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION

These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection againts fire harzard, replace with the same type fuse. fro rating, refer to the marking adjacent to the symbol.

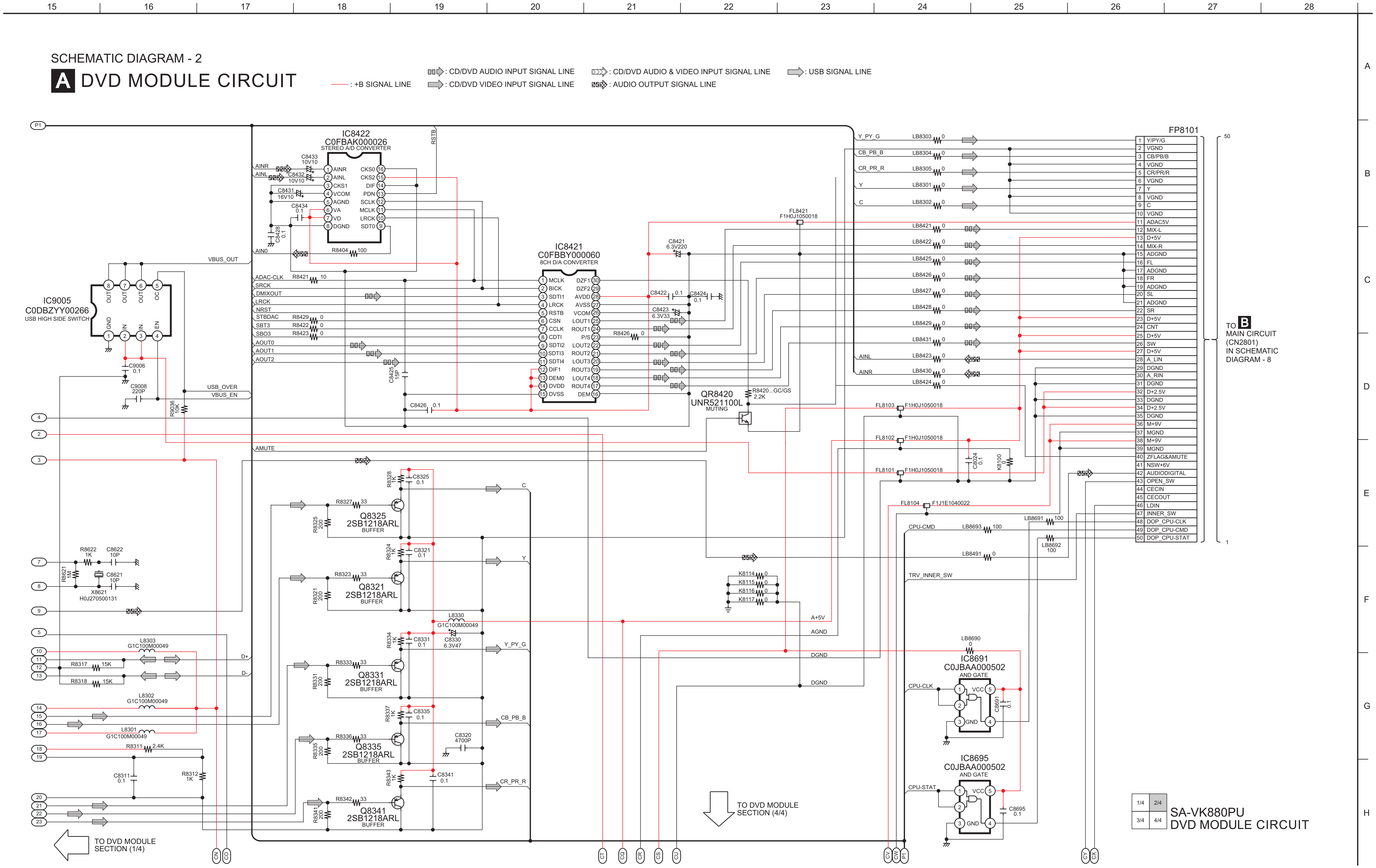
18 Schematic Diagram

18.1. DVD Module Circuit



SCHEMATIC DIAGRAM - 2

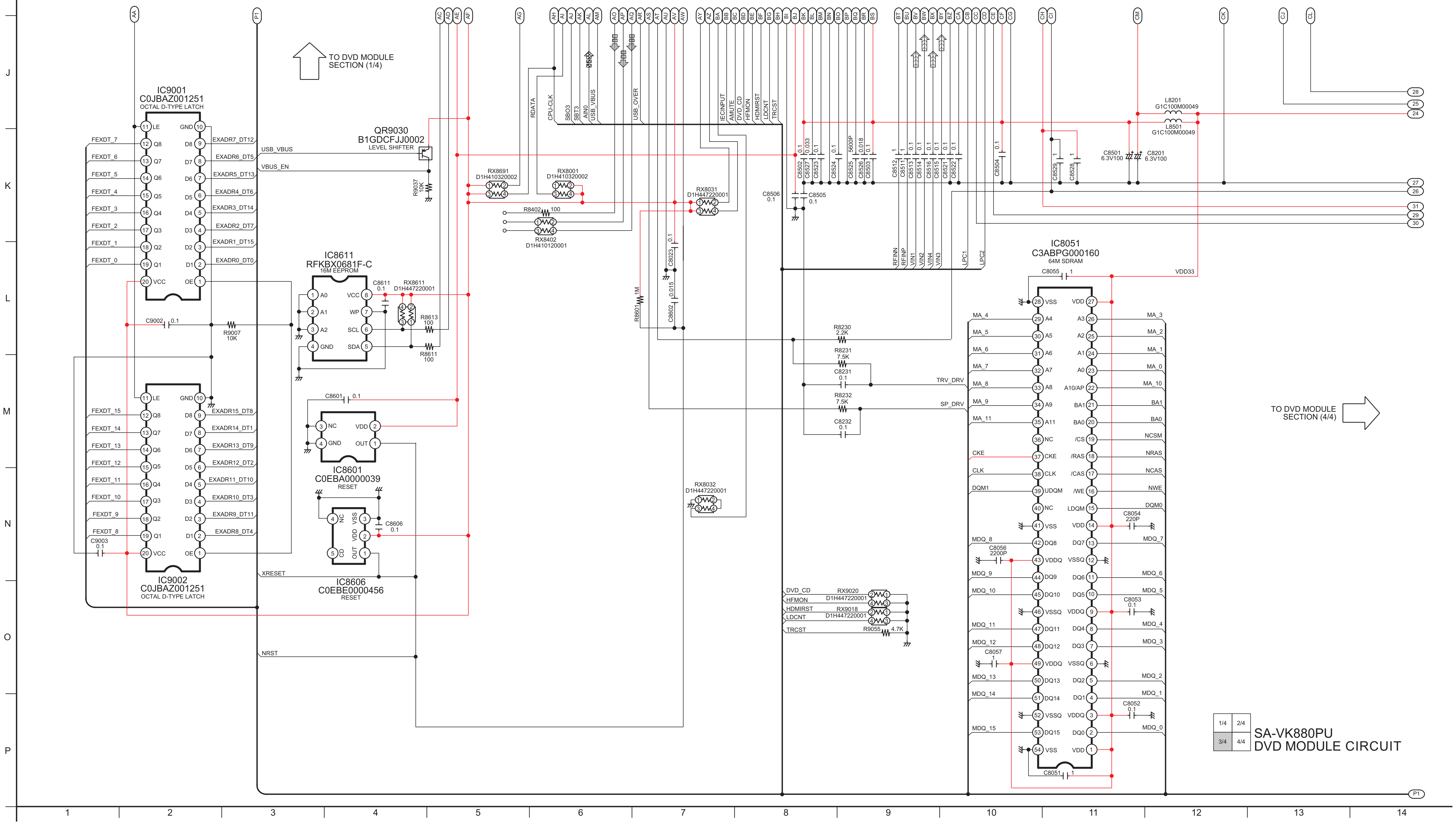
A DVD MODULE CIRCUIT



SCHEMATIC DIAGRAM - 3

A DVD MODULE CIRCUIT

: CD/DVD AUDIO INPUT SIGNAL LINE
: CD/DVD AUDIO & VIDEO INPUT SIGNAL LINE
: USB SIGNAL LINE
: +B SIGNAL LINE
: CD/DVD VIDEO INPUT SIGNAL LINE
: AUDIO OUTPUT SIGNAL LINE



SCHEMATIC DIAGRAM - 4

A DVD MODULE CIRCUIT

— : +B SIGNAL LINE

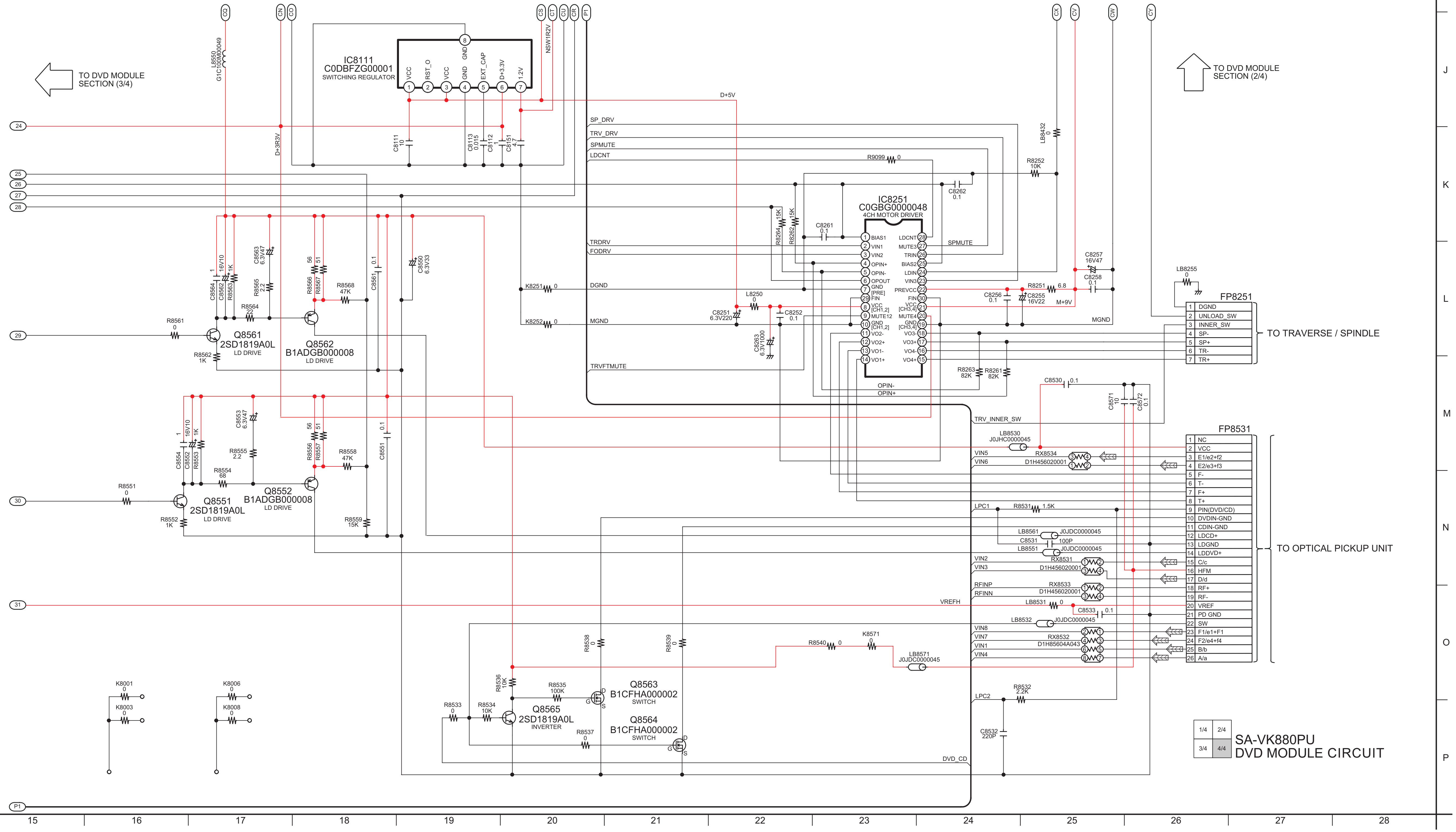
: CD/DVD AUDIO INPUT SIGNAL LINE

: CD/DVD VIDEO INPUT SIGNAL LINE

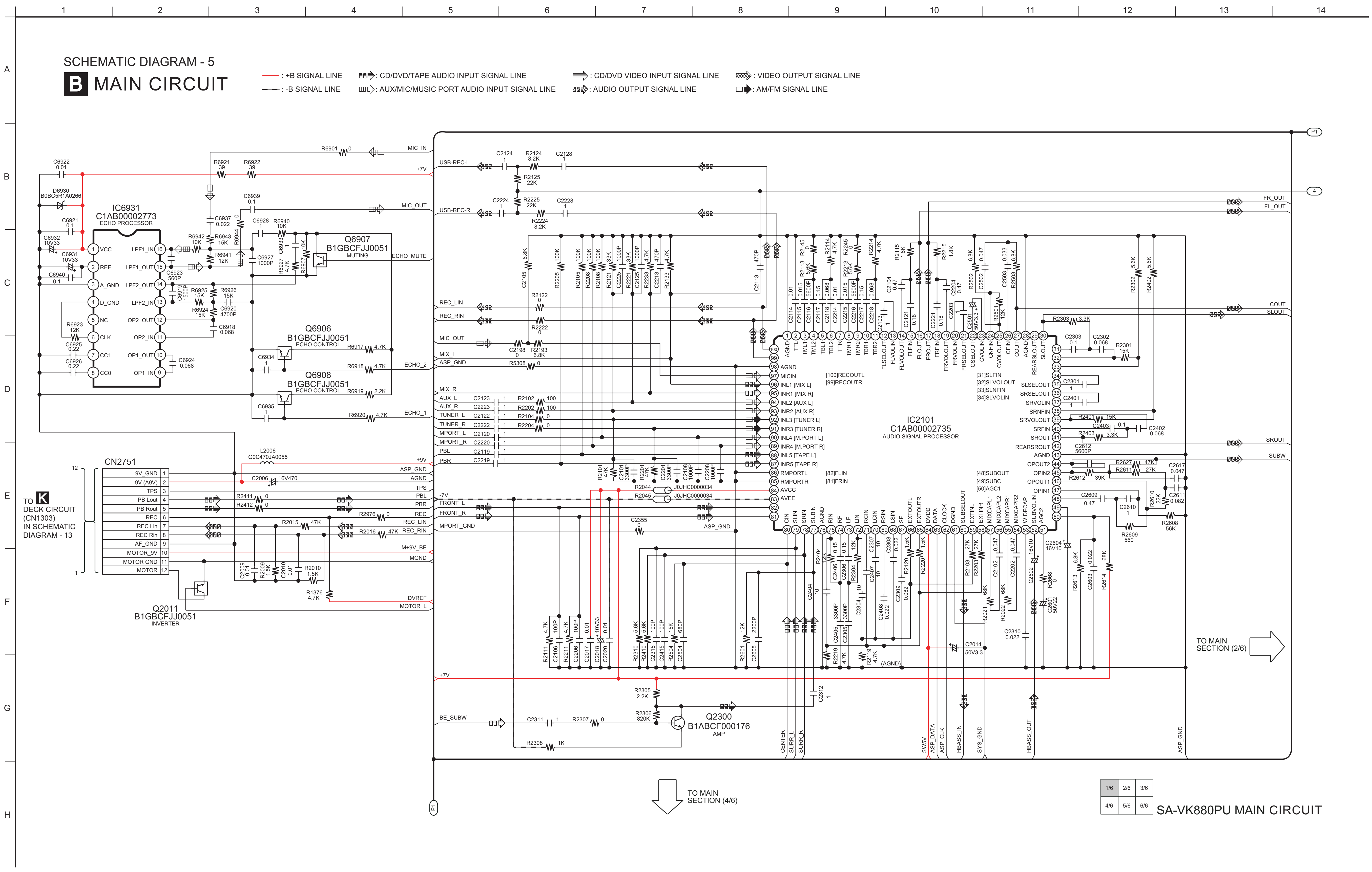
: CD/DVD AUDIO & VIDEO INPUT SIGNAL LINE

: AUDIO OUTPUT SIGNAL LINE

: USB SIGNAL LINE



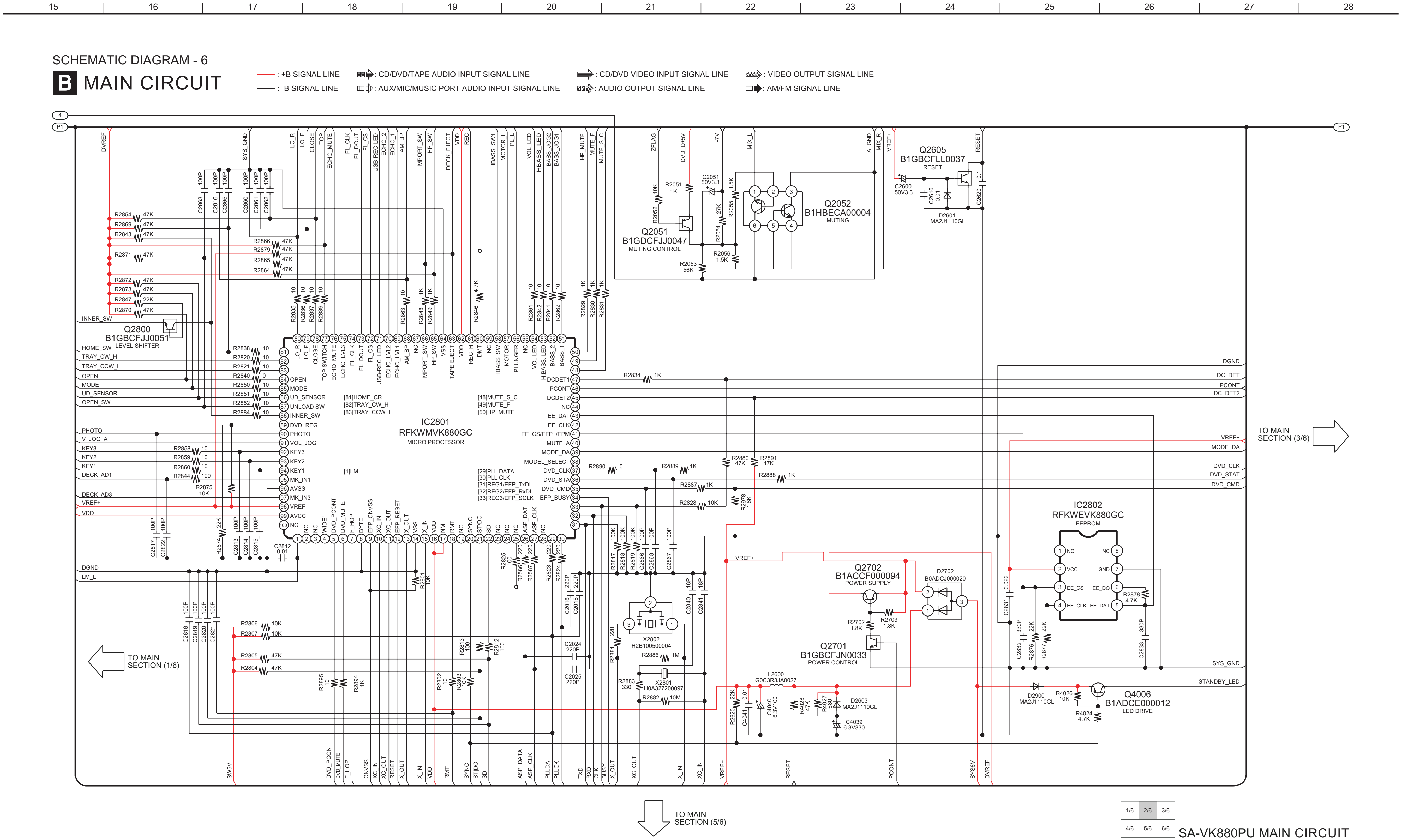
18.2. Main Circuit



SCHEMATIC DIAGRAM - 6

B MAIN CIRCUIT

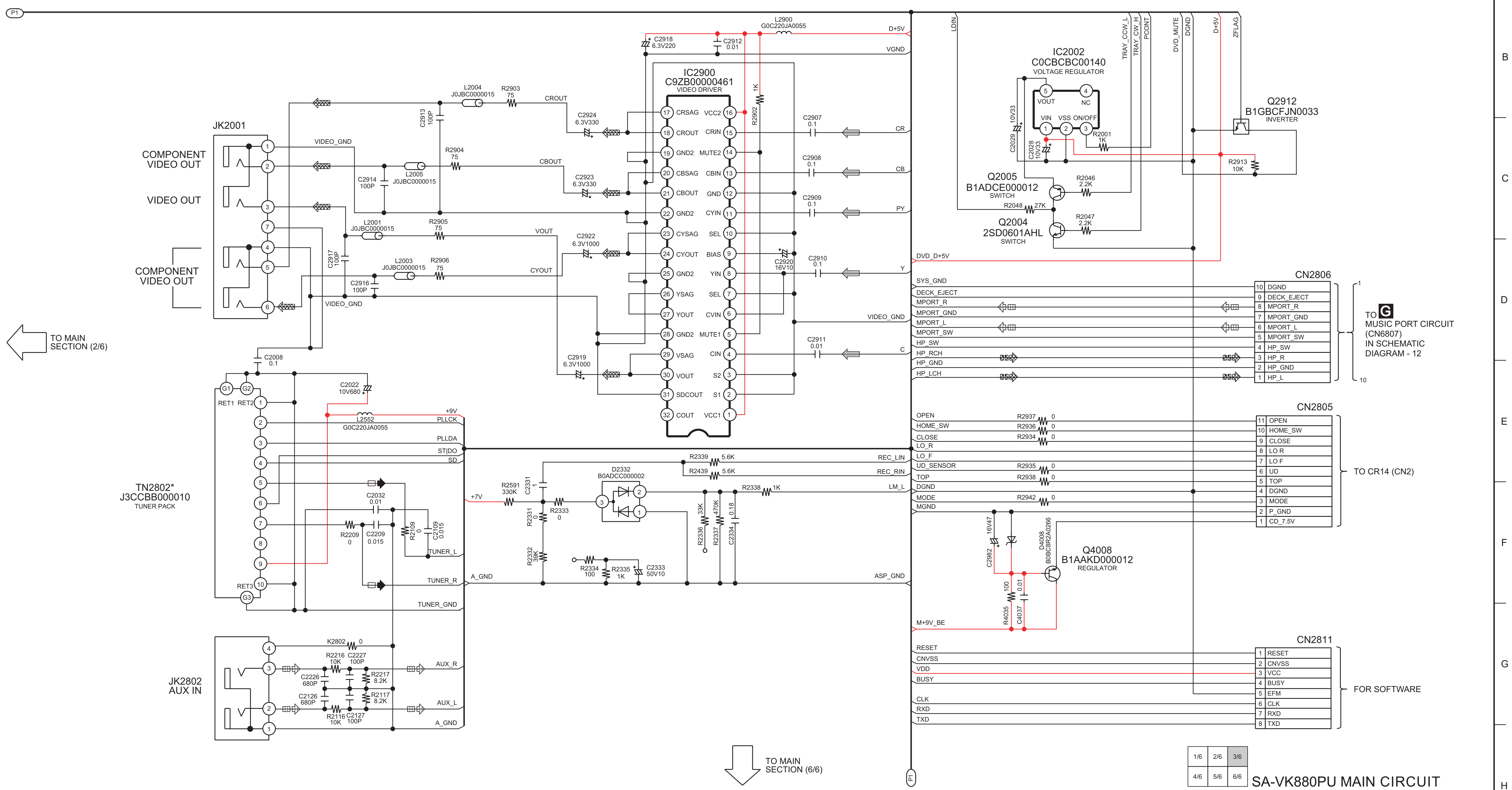
: +B SIGNAL LINE
: -B SIGNAL LINE
: CD/DVD/TAPE AUDIO INPUT SIGNAL LINE
: AUX/MIC/MUSIC PORT AUDIO INPUT SIGNAL LINE
: CD/DVD VIDEO INPUT SIGNAL LINE
: AUDIO OUTPUT SIGNAL LINE
: VIDEO OUTPUT SIGNAL LINE
: AM/FM SIGNAL LINE



SCHEMATIC DIAGRAM - 7

B MAIN CIRCUIT

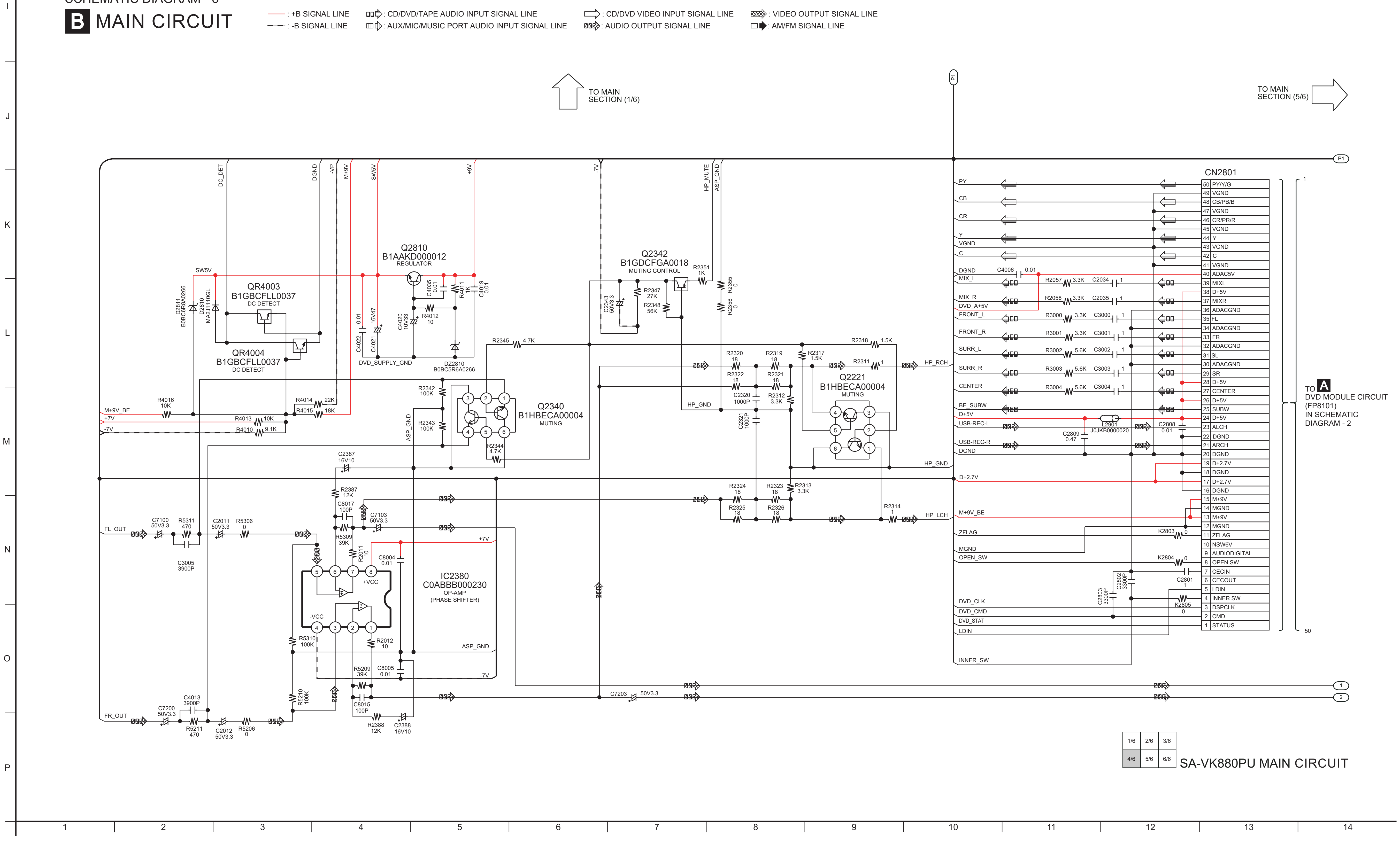
—— : +B SIGNAL LINE
–·– : -B SIGNAL LINE
: CD/DVD/TAPE AUDIO INPUT SIGNAL LINE
: AUX/MIC/MUSIC PORT AUDIO INPUT SIGNAL LINE
: CD/DVD VIDEO INPUT SIGNAL LINE
: AUDIO OUTPUT SIGNAL LINE
: VIDEO OUTPUT SIGNAL LINE
: AM/FM SIGNAL LINE



SA-VK880PU MAIN CIRCUIT

SCHEMATIC DIAGRAM - 8

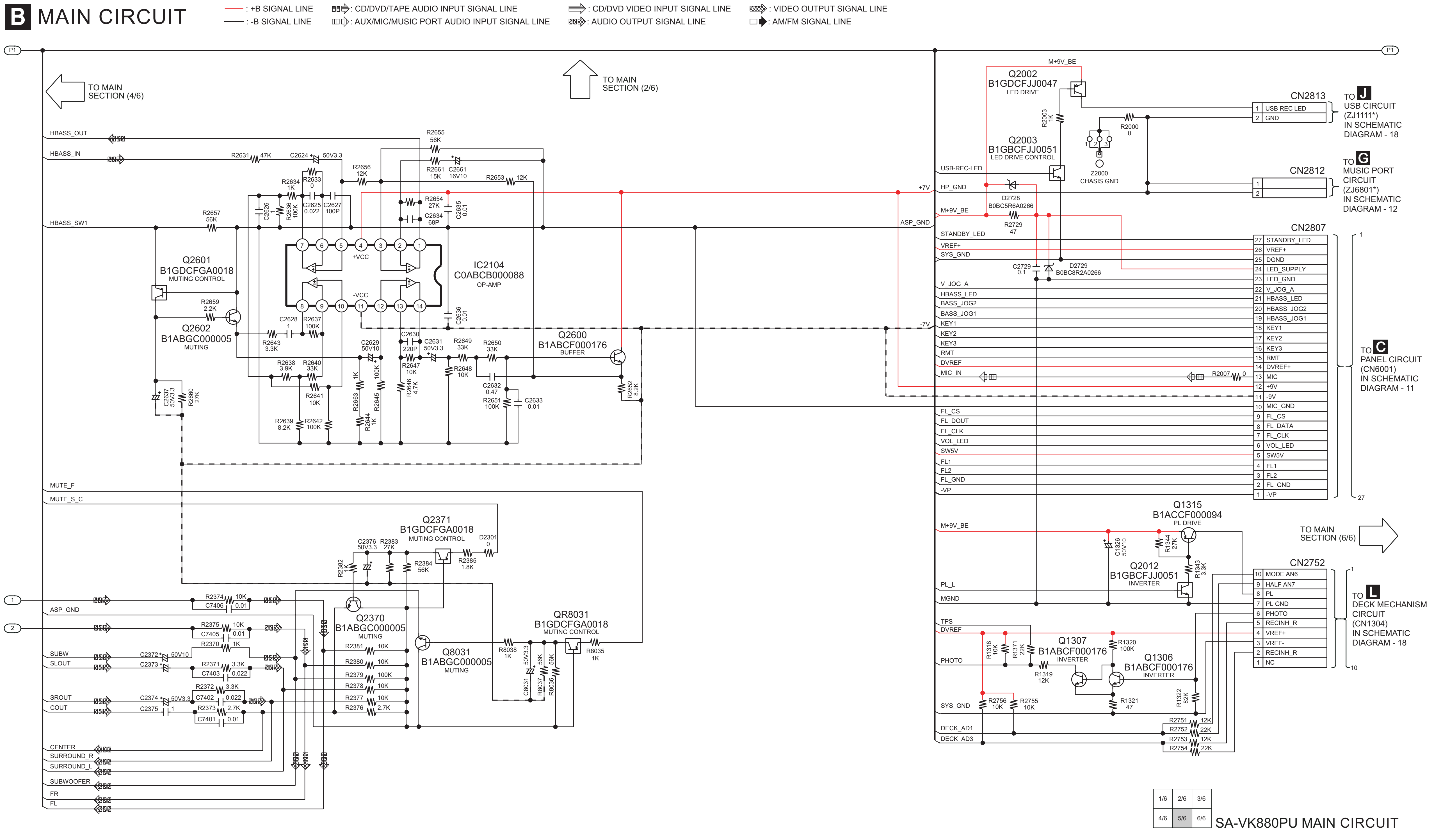
B MAIN CIRCUIT



SA-VK880PU MAIN CIRCUIT

SCHEMATIC DIAGRAM - 9

B MAIN CIRCUIT



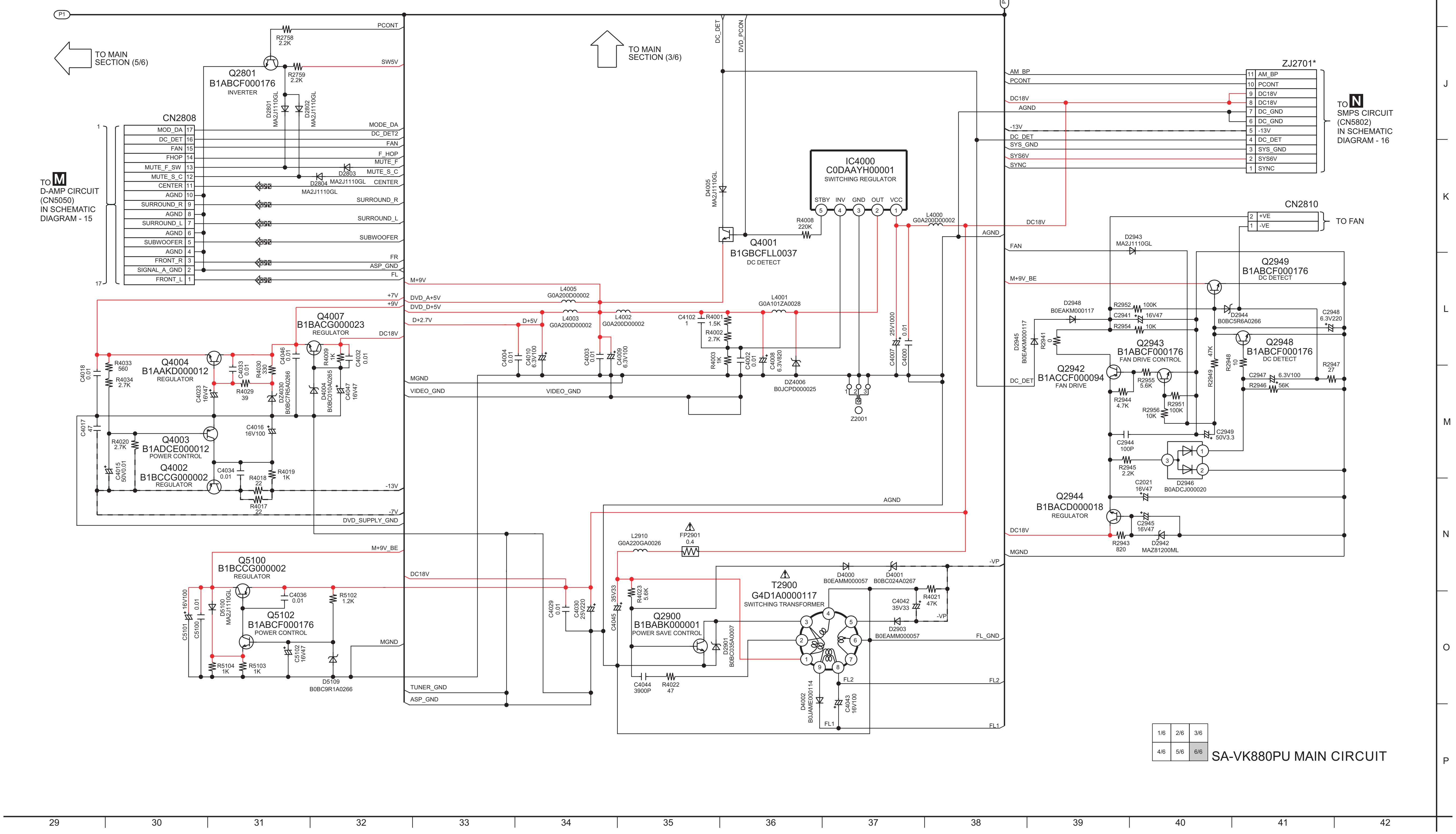
SA-VK880PU MAIN CIRCUIT

15 16 17 18 19 20 21 22 23 24 25 26 27 28

SCHEMATIC DIAGRAM - 10

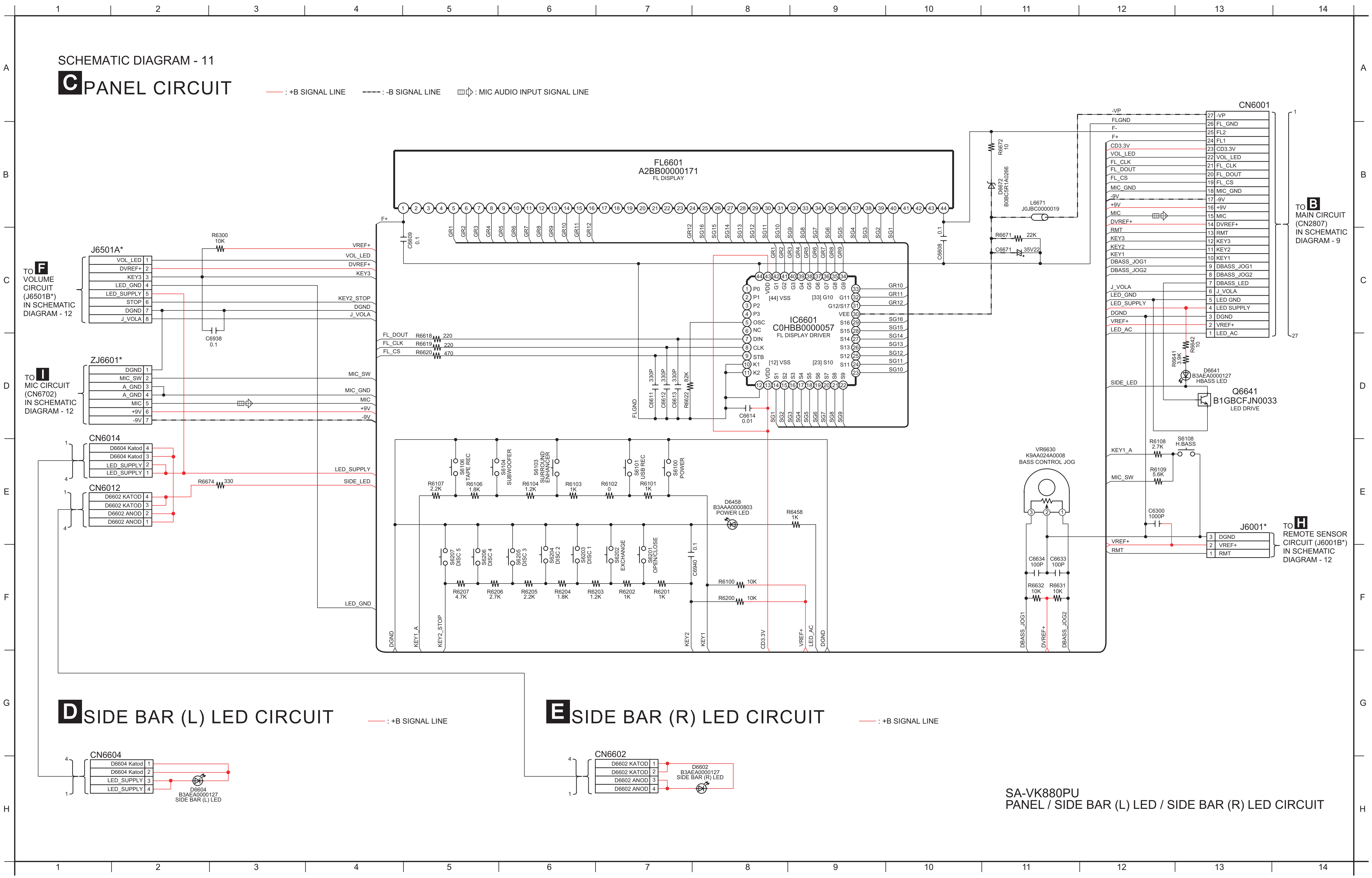
B MAIN CIRCUIT

: +B SIGNAL LINE
: -B SIGNAL LINE
: CD/DVD/TAPE AUDIO INPUT SIGNAL LINE
: AUX/MIC/MUSIC PORT AUDIO INPUT SIGNAL LINE
: CD/DVD VIDEO INPUT SIGNAL LINE
: AUDIO OUTPUT SIGNAL LINE
: VIDEO OUTPUT SIGNAL LINE
: AM/FM SIGNAL LINE

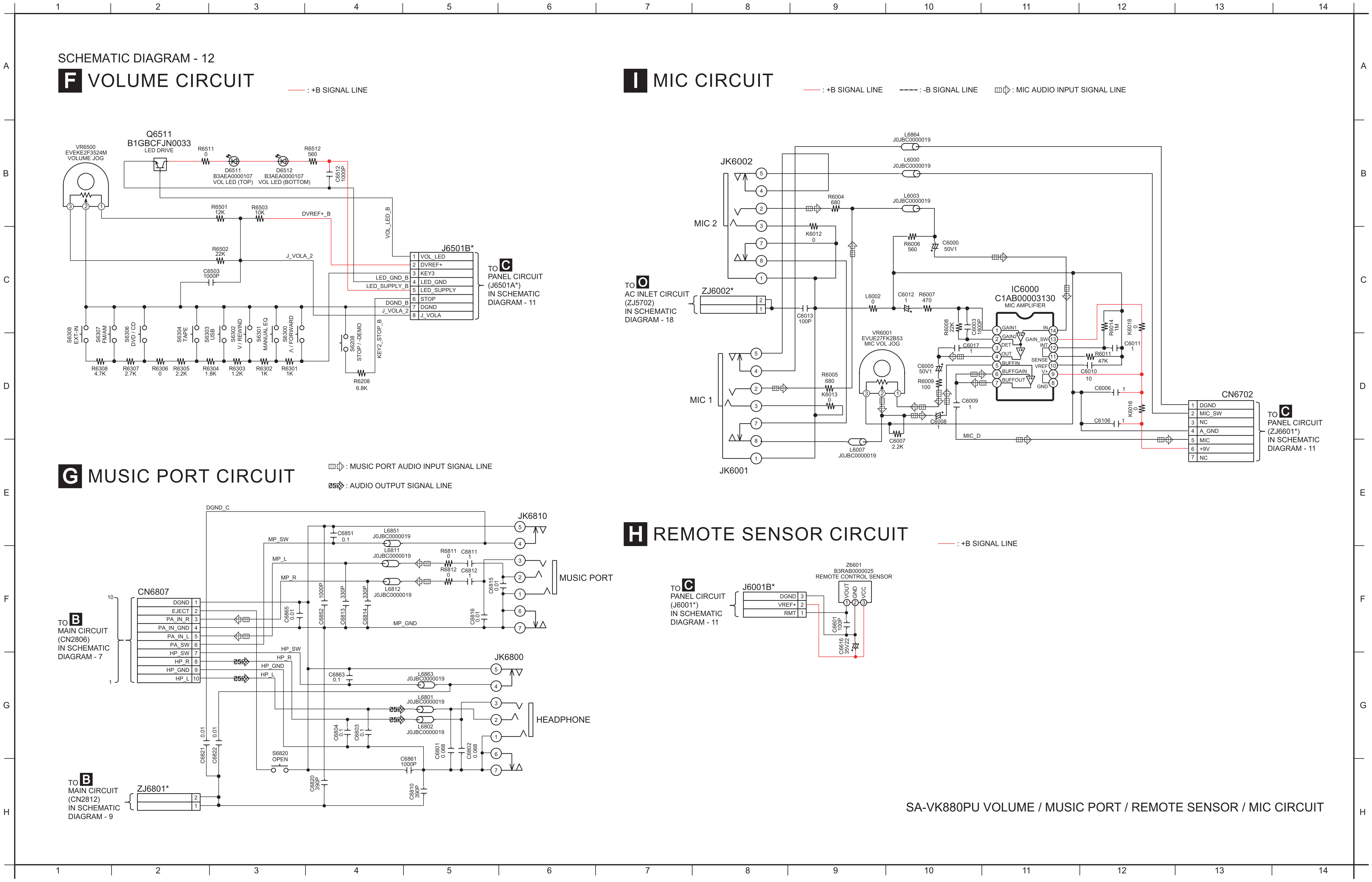


SA-VK880PU MAIN CIRCUIT

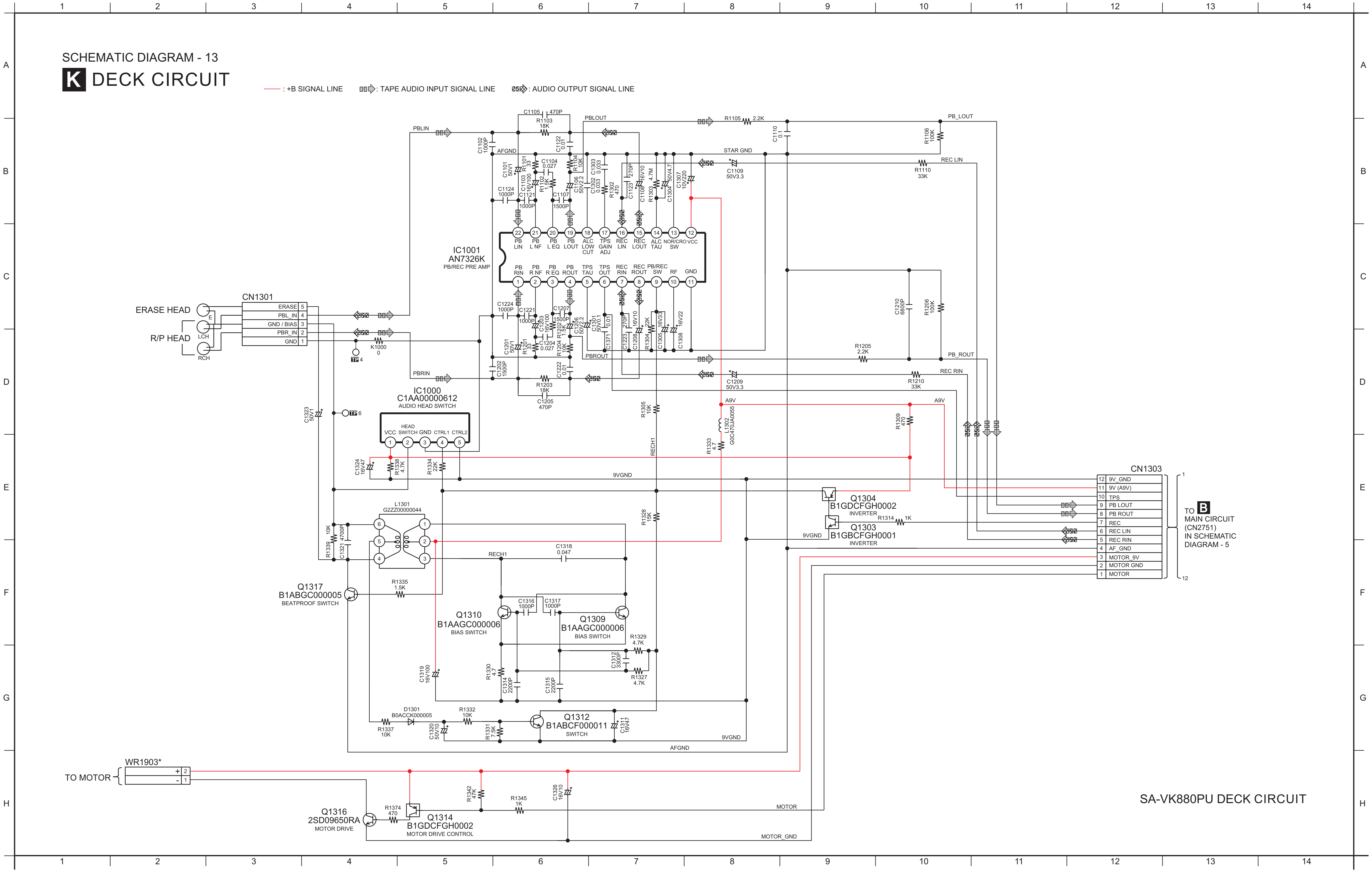
18.3. Panel, Side Bar (L) Led & Side Bar (R) Led Circuit



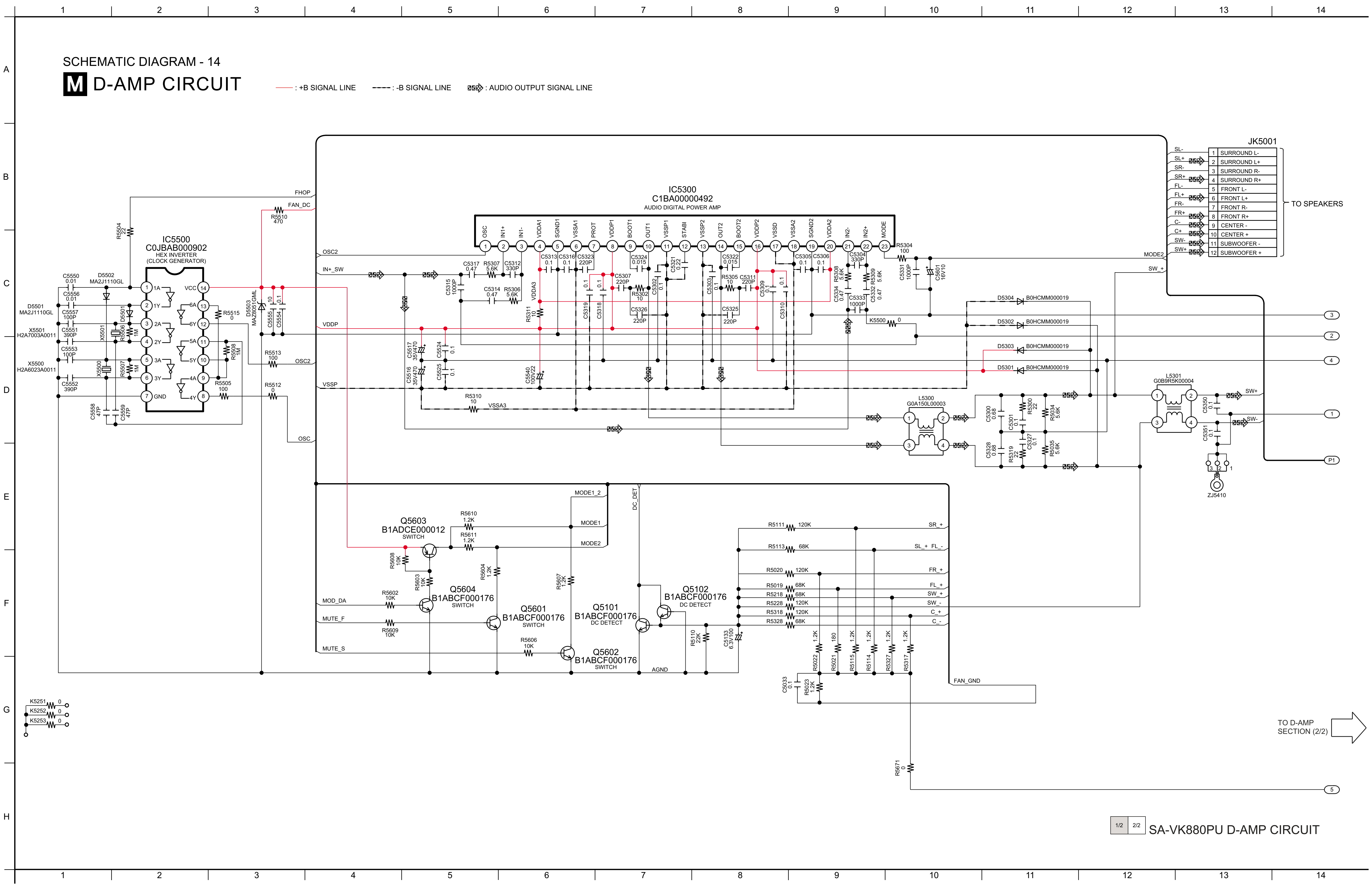
18.4. Volume, Music Port, Remote Sensor & Mic Circuit



18.5. Deck Circuit



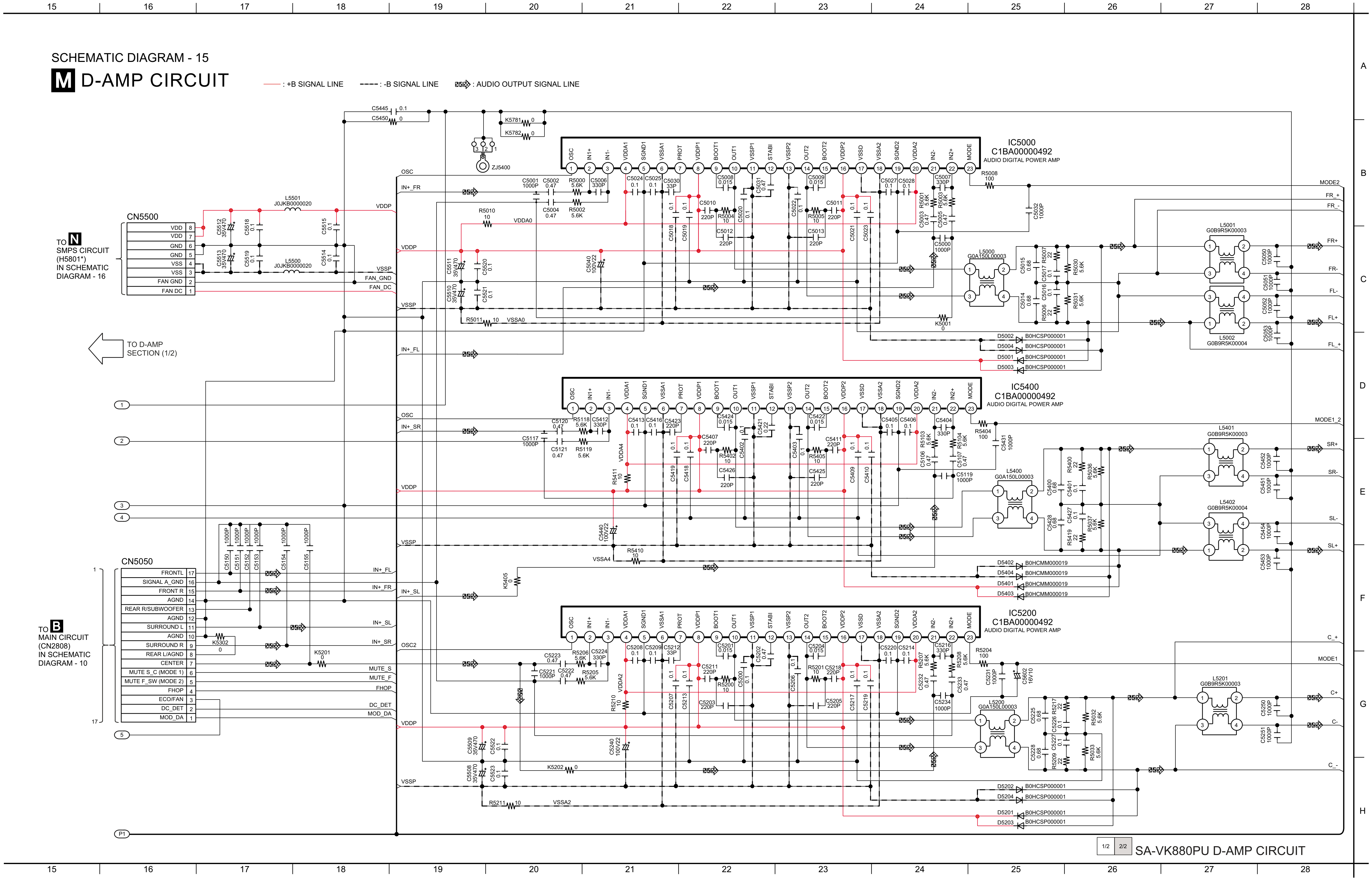
18.6. D-Amp Circuit



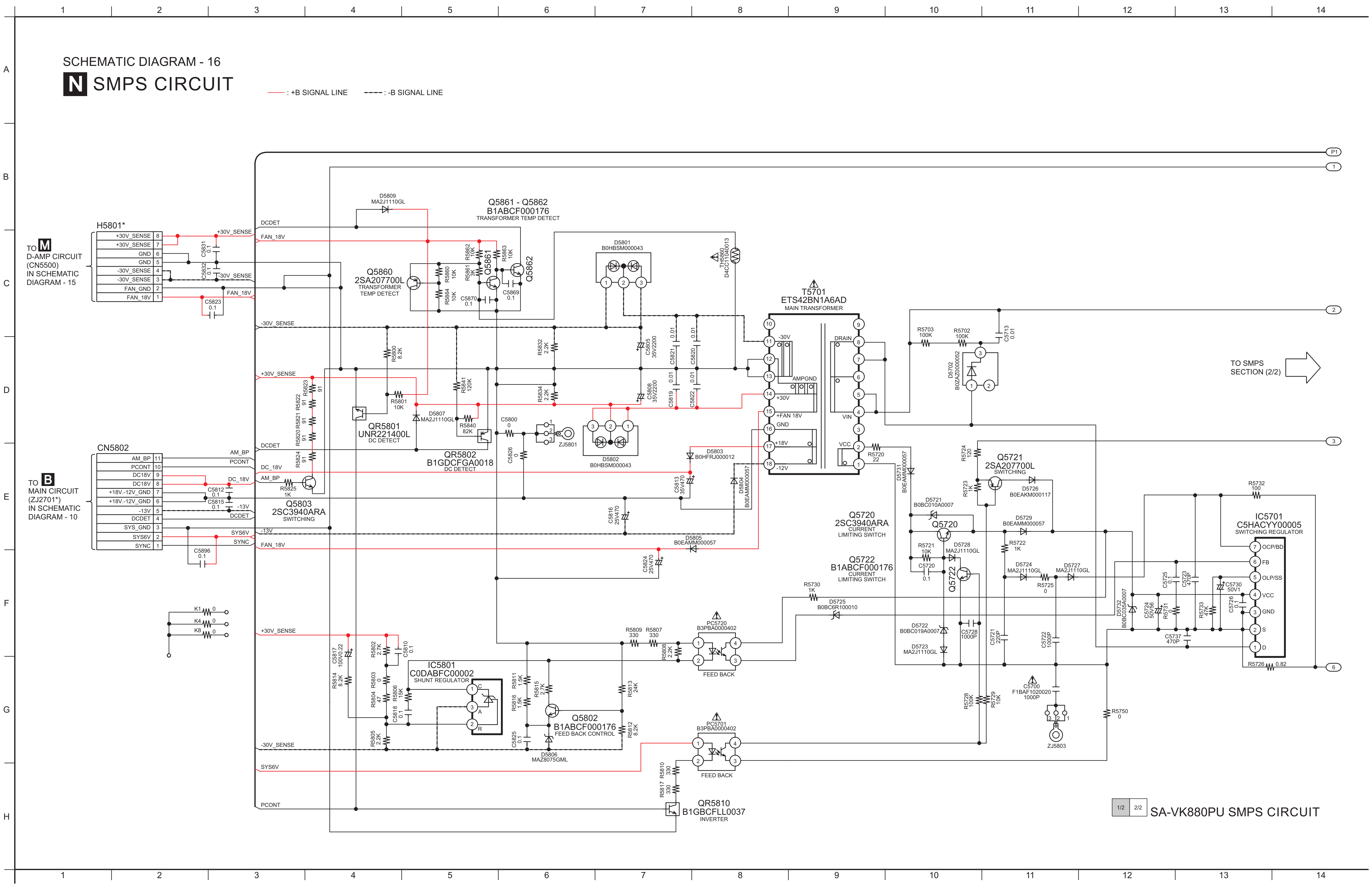
SCHEMATIC DIAGRAM - 15

M D-AMP CIRCUIT

: +B SIGNAL LINE   : -B SIGNAL LINE   : AUDIO OUTPUT SIGNAL LINE



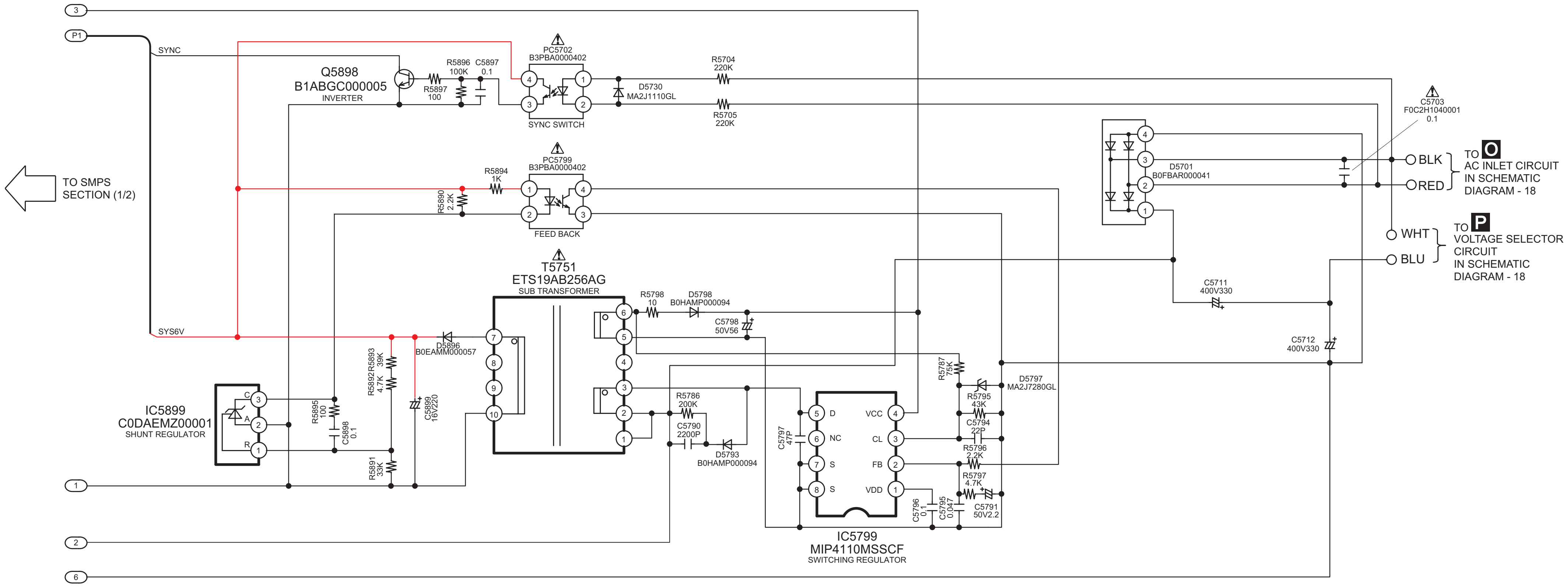
18.7. SMPS Circuit



SCHEMATIC DIAGRAM - 17

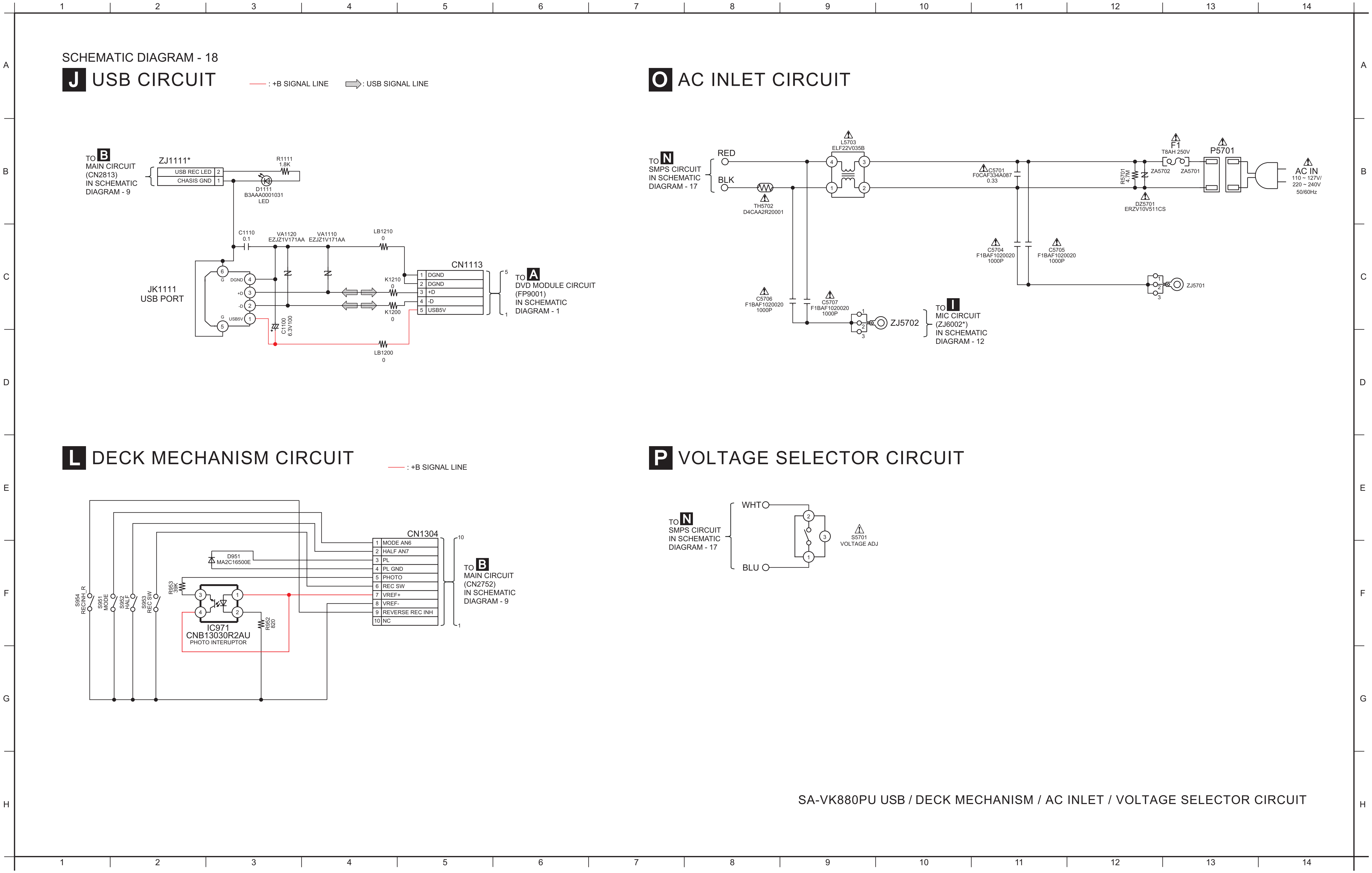
N SMPS CIRCUIT

: +B SIGNAL LINE : -B SIGNAL LINE



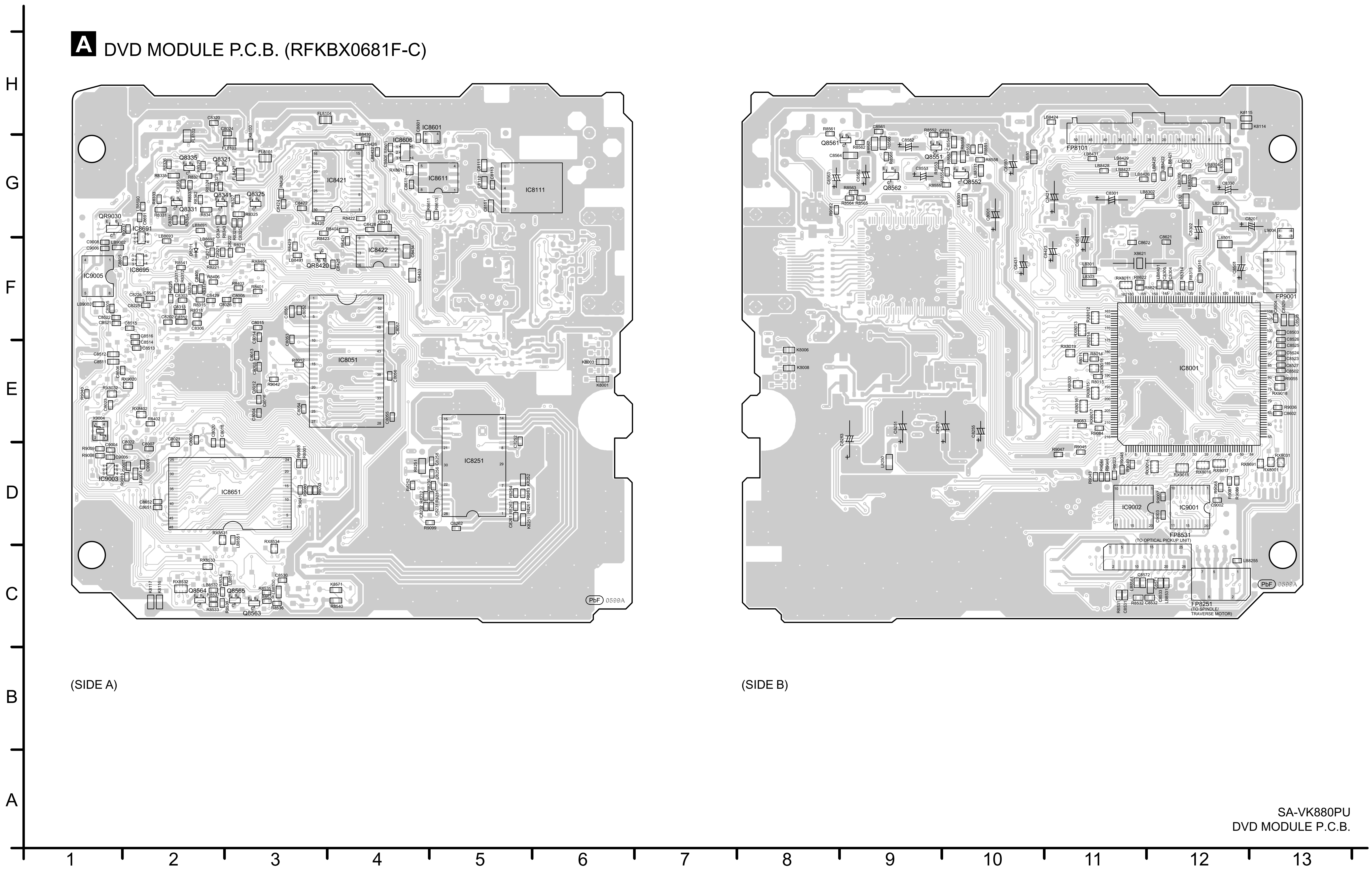
1/2 2/2 SA-VK880PU SMPS CIRCUIT

18.8. USB, Deck Mechanism, AC Inlet & Voltage Selector Circuit

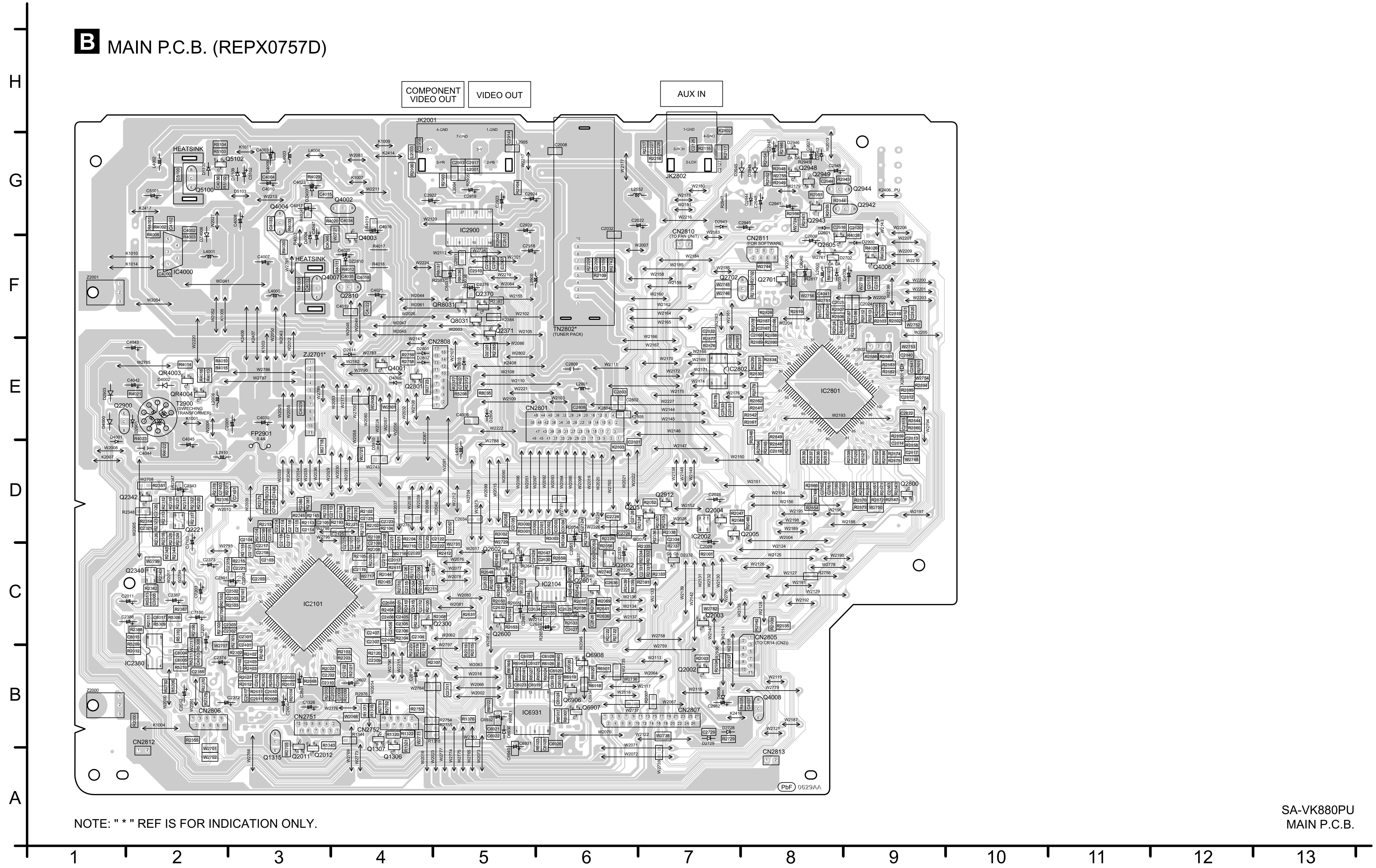


19 Printed Circuit Board

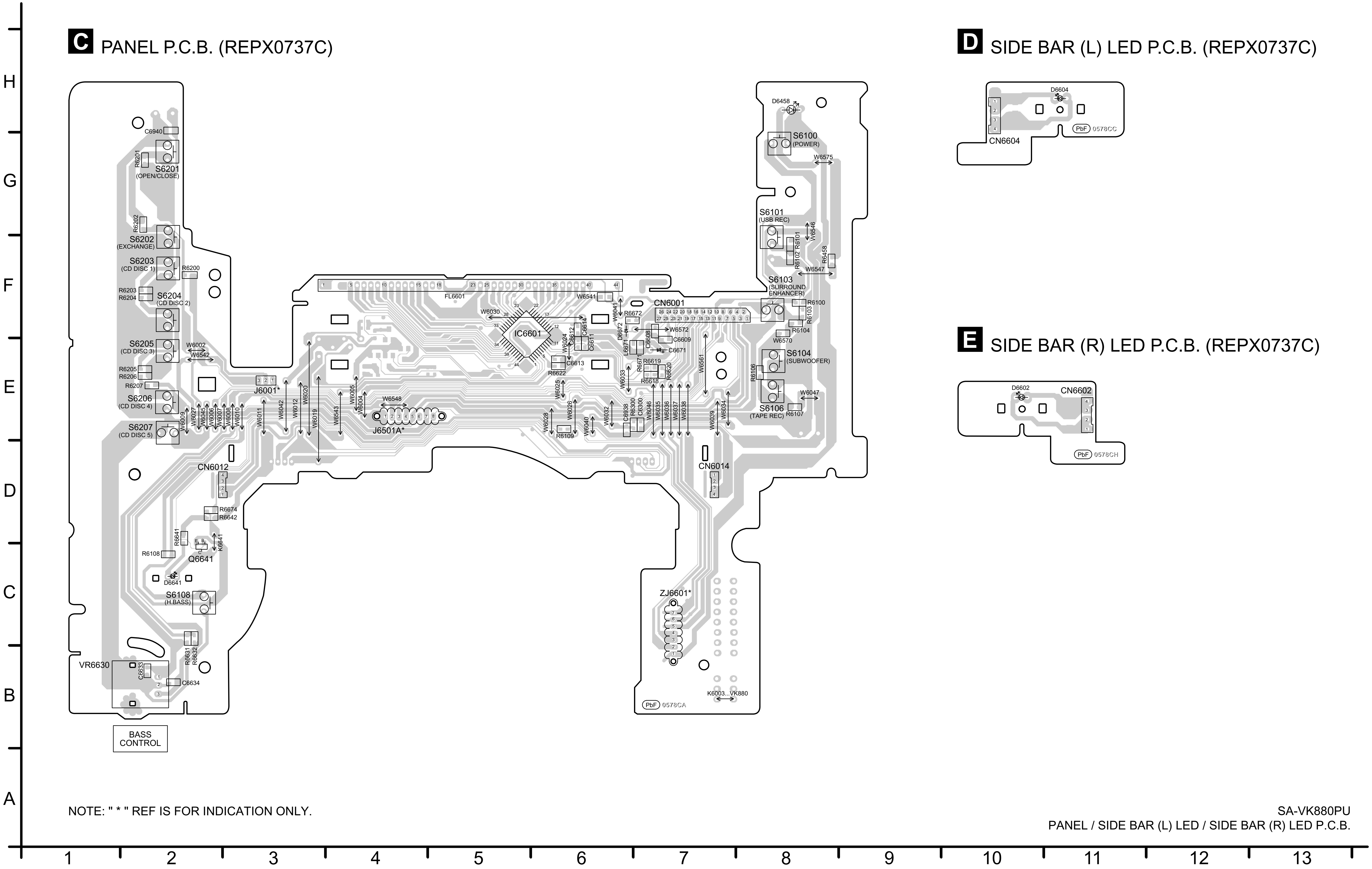
19.1. DVD Module P.C.B.



19.2. Main P.C.B.


B MAIN P.C.B. (REPX0757D)
COMPONENT VIDEO OUT
VIDEO OUT
AUX IN
HEATSINK
JK2001
JK2802
TN2802*
(TUNER PACK)
CN2810
(TO FAN UNIT)
CN2811
(FOR SOFTWARE)
IC2801
IC2101
IC2900
IC6931
IC2104
T2900
(SWITCHING TRANSFORMER)
FP2901
CN2805
(TO CR14 (CN2))
CN2807
CN2806
CN2751
CN2752
CN2812
CN2813
NOTE: " * " REF IS FOR INDICATION ONLY.
SA-VK880PU
MAIN P.C.B.

19.3. Panel, Side Bar (L) Led & Side Bar (R) Led P.C.B.

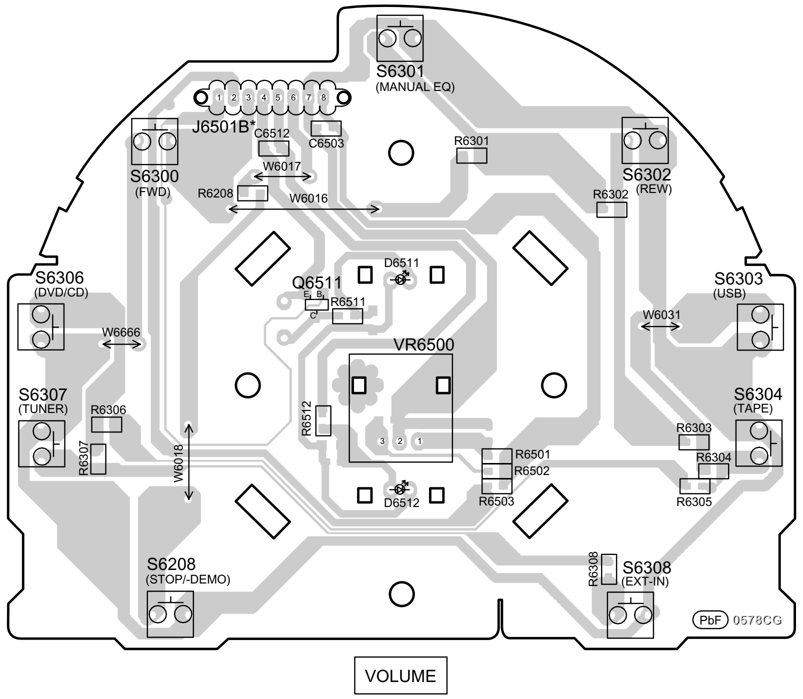


NOTE: " * " REF IS FOR INDICATION ONLY.

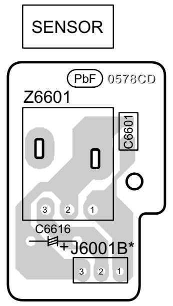
SA-VK880PU
PANEL / SIDE BAR (L) LED / SIDE BAR (R) LED P.C.B.

19.4. Volume, Music Port, Remote Sensor, Mic & USB P.C.B.

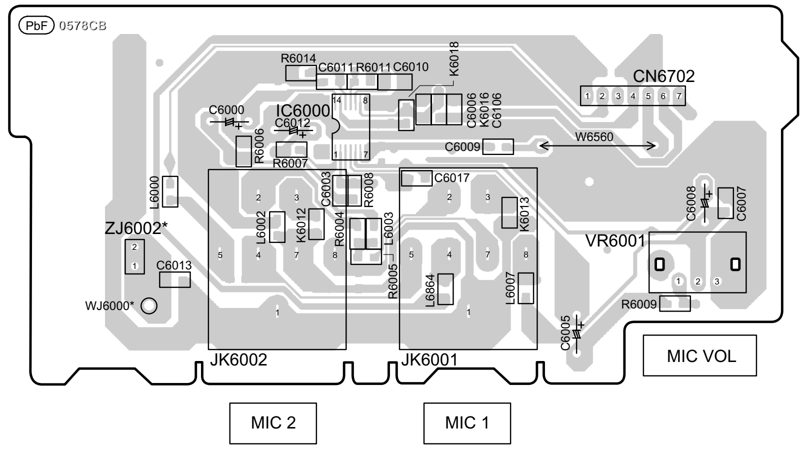
F VOLUME P.C.B. (REPX0737C)



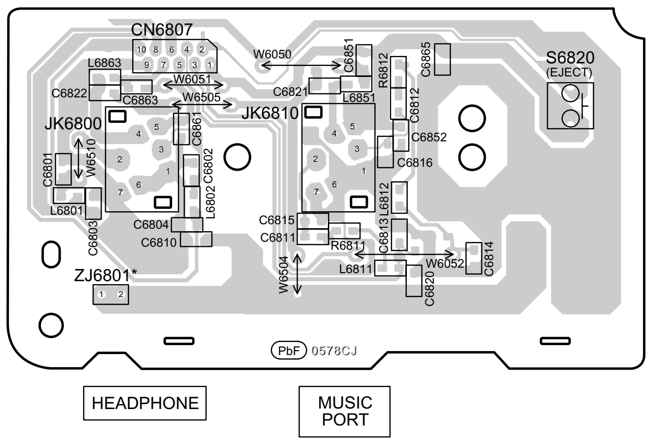
H REMOTE SENSOR P.C.B. (REPX0737C)



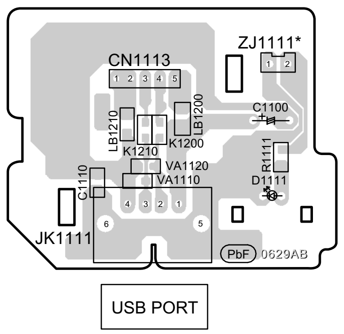
I MIC P.C.B. (REPX0737C)



G MUSIC PORT P.C.B. (REPX0737C)



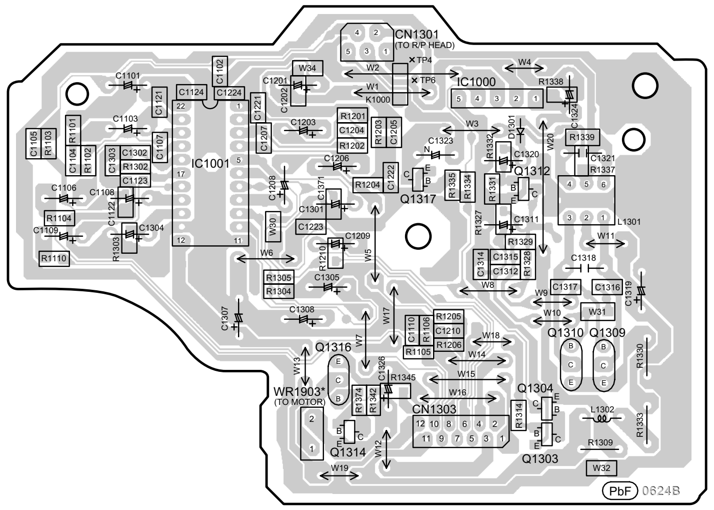
J USB P.C.B. (REPX0757D)



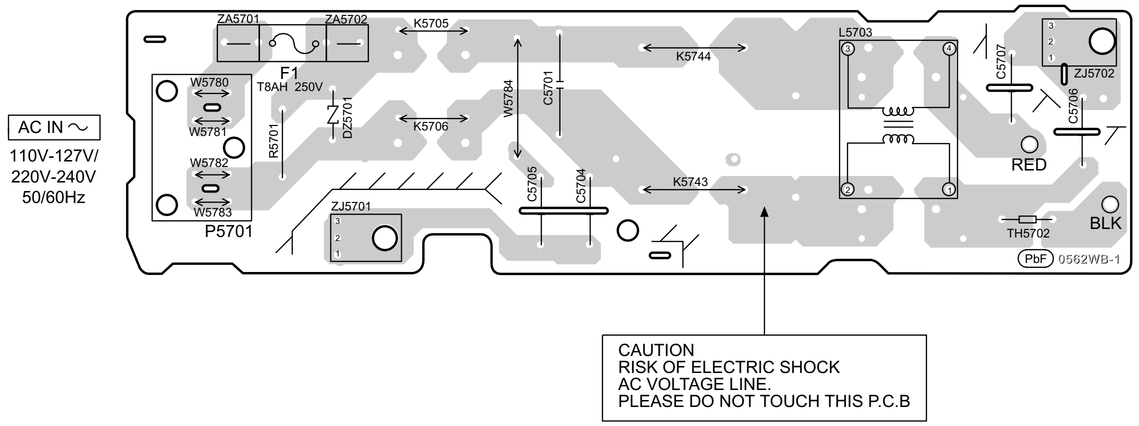
NOTE: " * " REF IS FOR INDICATION ONLY.

19.5. Deck, Deck Mechanism, AC Inlet & Voltage Selector P.C.B.

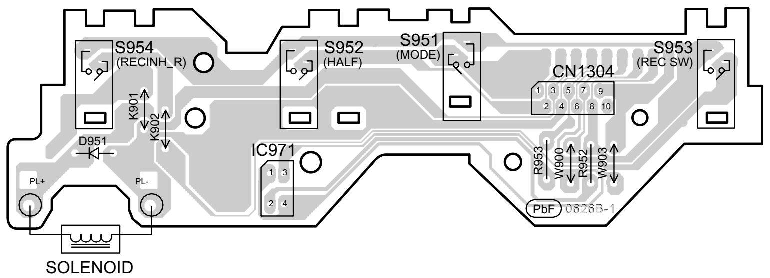
K DECK P.C.B. (REPX0722B)



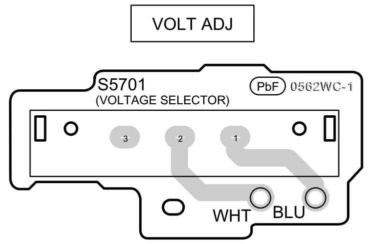
O AC INLET P.C.B. (REPX0751G)



L DECK MECHANISM P.C.B. (REPX0740C)

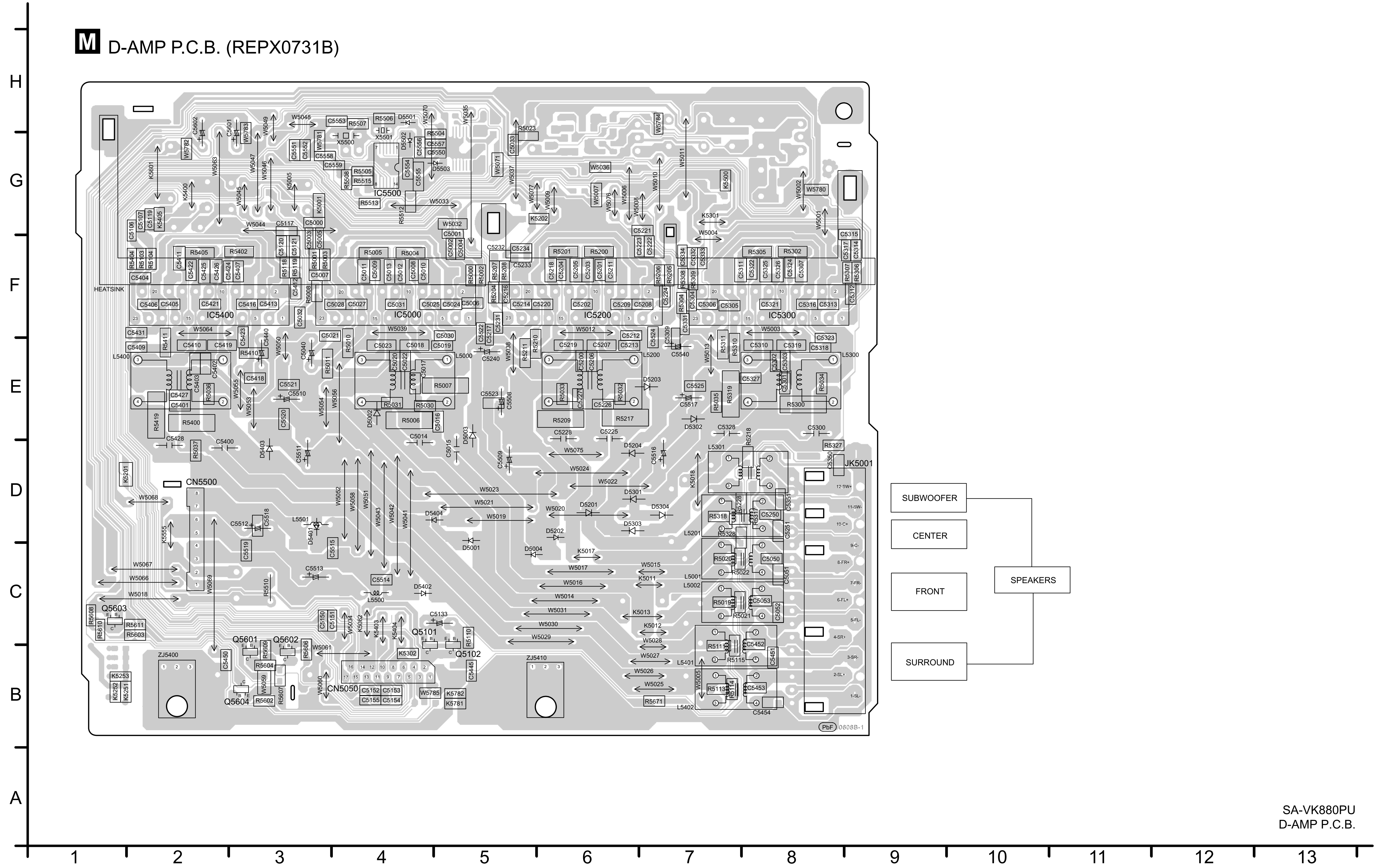


P VOLTAGE SELECTOR P.C.B. (REPX0751G)



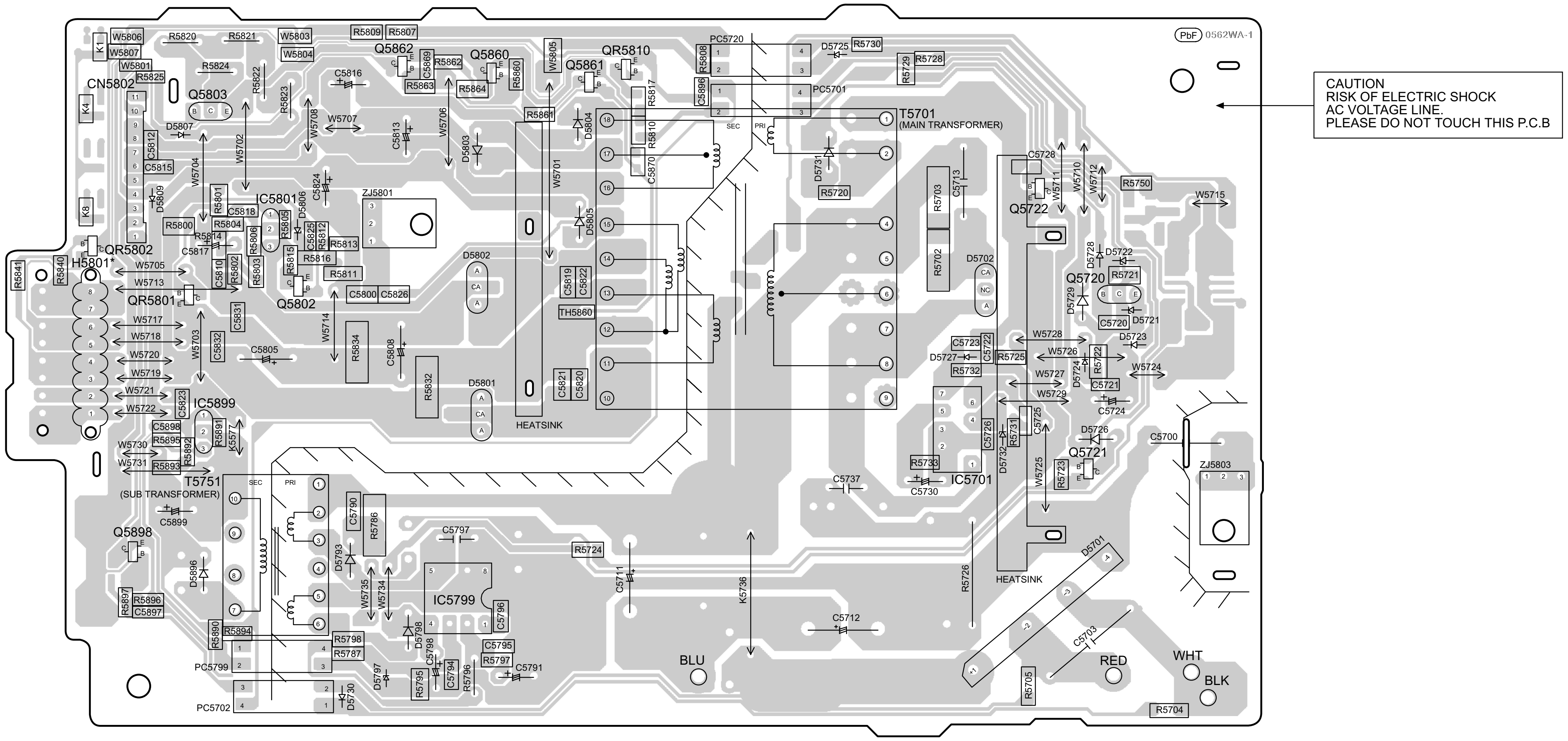
NOTE: " * " REF IS FOR INDICATION ONLY.

19.6. D-Amp P.C.B.


M D-AMP P.C.B. (REPX0731B)
HEATSINK
IC5400
IC5000
IC5200
IC5300
IC5500
CN5500
CN5050
JK5001
SUBWOOFER
CENTER
FRONT
SURROUND
SPEAKERS
SA-VK880PU
D-AMP P.C.B.

19.7. SMPS P.C.B.

N SMPS P.C.B. (REPX0751G)



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-VK880PU
SMPS P.C.B.

20 Terminal Function of ICs

20.1. IC2801 (RFKWMVK880GC): IC MICROPROCESSOR

Pin No.	Terminal Name	I/O	Function
1	LM	I	Level Meter Left
2	NC	-	No Connection
3	NC	-	No Connection
4	WIDE1	-	NC
5	DVD_PCONT	O	Power Control pin for DVD Module
6	DVD_Mute	I	Signal from DVD module control mute circuit
7	F_HOP	O	F_Hop for Digital Amplifier
8	BYTE	-	External Data Bus Width Select Input (Connect to Ground)
9	EFP_CNVss	-	Flash Mode Terminal
10	Xc_in	-	32.768 kHz Sub Clock
11	Xc_out	-	32.768 kHz Sub Clock
12	EFP_RESET	-	Reset Input (ACTIVE L)
13	Xout	-	10 Mhz Main Clock
14	Vss	-	Ground (0V)
15	Xin	-	10 Mhz Main Clock
16	VDD	-	Power Supply (+5V)
17	NMI	-	Connect to VDD (+5V)
18	RMT	I	Remote Control Input
19	NC		No Connection
20	SYNC	I	AC Failure Detect Input
21	ST/DO	I	Tuner IF Data / Stereo Input
22	SD	I	Tuner Signal Detect Input
23	NC	-	No Connection
24	NC	-	No Connection
25	NC	-	No Connection
26	ASP_DATA	O	ASP DATA
27	ASP_CLK	O	ASP CLOCK
28	NC		No Connection
29	PLLDATA	O	PLL DATA
30	PLLCLK	O	PLL CLOCK
31	REG1/ EFP_TxDI	I	TUNER Region Setting 1/ Flash TX for on board writer
32	REG2/ EFP_RxDI	I	TUNER Region Setting 2/ Flash RX for on board writer
33	REG3/ EFP_SCLK	I	TUNER Region Setting 3/ CLK TX for on board writer
34	EFP_BUSY	I	EFP BUSY
35	DVD_CMD	O	CMD Signal for DVD Module
36	DVD_STA	I	STATUS Signal from DVD module
37	DVD_CLK	I	CLOCK Signal from DVD module
38	MODEL_SELECT	-	NC
39	MODE_DA	O	Digital Amplifier Muting
40	MUTE_A	-	NC
41	EE_CS/EFP/ EPM	O	EEPROM Chip Select
42	EE_CLK	O/I	EEPROM CLOCK
43	EE_DATA	O/I	EEPROM DATA
44	NC	-	NC
45	DCDET2	I	DC Detect Input
46	PCONT	O	Main Transformer Control Output
47	DCDET1	I	DC Detect Input
48	MUTE_S_C	O	Mute Surround and Center
49	MUTE_F	O	MUTE FRONT
50	HP_MUTE	O	Headphone Mute
51	BASS_1	I	Bass Control 1
52	BASS_2	I	Bass Control 2
53	H.BASS LED	O	dimmer control
54	VOL LED	O	dimmer control
55	NC	-	No Connection
56	PLUNGER	O	Deck plunger control
57	MOTOR	O	Deck motor control
58	HBass_SW	O	Harmonic Bass Control
59	NC	-	No Connection
60	DMT	-	No Connection
61	REC_H	O	Deck Recording control
62	VDD	-	Power Supply (+5V)
63	TAPE EJECT	I	Deck Eject
64	Vss	-	Ground (0V)
65	HP_SW	I	Head Phone Detection
66	MPORT_SW	I	Music Port Detection
67	NC	-	NC
68	AM_BP	O	AM Beaf Proof
69	ECHO_LVL1	O	ECHO Level Control 1
70	ECHO_LVL2	O	ECHO Level Control 2
71	USB_REC_LED	O	LED for USB ripping
72	FL_CS	O	FL Driver Chip Select
73	FL_ DOUT	O	Serial Data to FL Driver
74	FL_CLK	O	Serial Clock to FL Driver
75	ECHO_LVL3	O	No Connection
76	ECHO_MUTE	O	ECHO Muting
77	TOP SWITCH	I	Top Sensor (CR14)
78	CLOSE	I	CLOSE Switch (CR14)
79	LO_F	O	Mecha Loading Mechanism
80	LO_R	O	Mecha Loading Reverse
81	HOME_CR	I	Home Sensor (CR14)
82	TRAY_CW_H	O	Tray Close Signal
83	TRAY_CCW_L	O	Tray Open Signal
84	OPEN	I	Open Switch (CR14)
85	MODE	I	MODE Sensor (CR14)
86	UD_SENSOR	I	CR14 control Position detect
87	UNLOAD SW	I	Unload Switch (CR14)
88	INNER_SW	I	Inner Switch (CR14)
89	DVD_REG	I	DVD Region Setting
90	PHOTO	I	Mecha condition input 2 (PHOTO/ TPS)
91	VOL_JOG	I	Volume control
92	KEY3	I	Keyline 3 input
93	KEY2	I	Keyline 2 Input
94	KEY1	I	Keyline 1 input
95	MK_IN 1	I	Mecha condition input 1 (MODE, HALF)
96	AVss	-	Analog Power Supply Input (Con-nect to Ground)
97	MK_IN3	I	Mecha condition input 3 (RECINH_F, RECINH_R)
98	Vref	-	Reference for A-D (+5V)
99	AVcc	-	Analog Power Supply Input
100	NC	-	No Connection

20.2. IC6601(C0HBB0000057): IC FL Driver

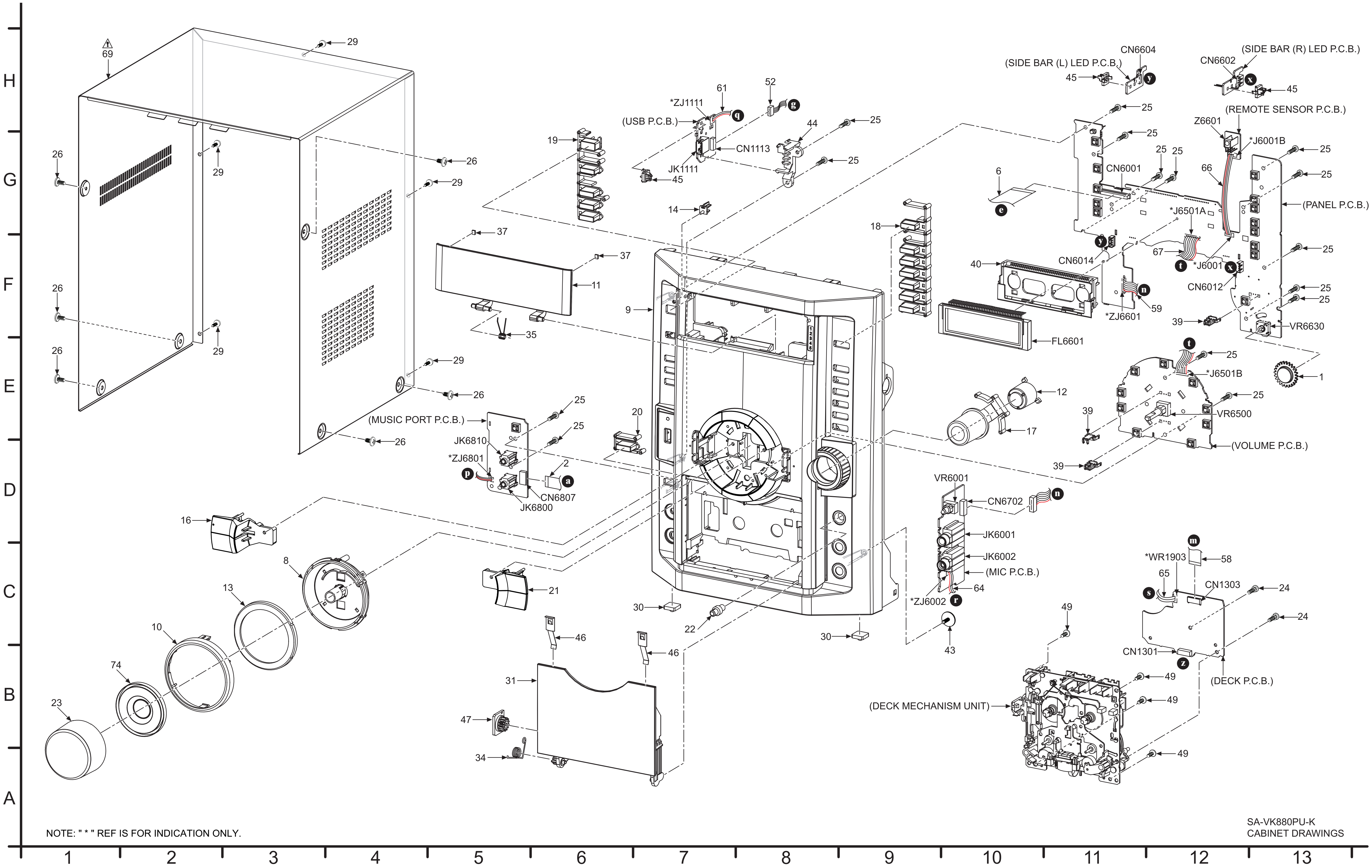
Pin No.	Terminal Name	I/O	Function
1	P0	O	No Connection
2	P1	-	No Connection
3	P2	-	No Connection
4	P3	-	No Connection
5	OSC	I	Oscillator Input
6	NC	-	No Connection
7	DIN	I	Data Input
8	CLK	I	Clock Input
9	STB	I	Serial Interface Strobe

Pin No.	Terminal Name	I/O	Function
10	K1	-	Key Data Input 1 (No Connection)
11	K2	-	Key Data Input 2 (No Connection)
12	VSS	-	GND
13	VDD	-	Power Supply (+5V)
14	S1	O	Segment Output 18
15	S2	O	Segment Output 17
16	S3	O	Segment Output 16
17	S4	O	Segment Output 15
18	S5	O	Segment Output 14
19	S6	O	Segment Output 13
20	S7	O	Segment Output 12
21	S8	O	Segment Output 11
22	S9	O	Segment Output 10
23	S10	O	Segment Output 9
24	S11	O	Segment Output 8
25	S12	O	Segment Output 7
26	S13	O	Segment Output 6
27	S14	O	Segment Output 5
28	S15	O	Segment Output 4
29	S16	O	Segment Output 3
30	VEE	-	Voltage Supply
31	G12	O	Segment Output 2
32	G11	O	Segment Output 1
33	G10	O	Grid Segment Output 1
34	G9	O	Grid Segment Output 2
35	G8	O	Grid Segment Output 3
36	G7	O	Grid Segment Output 4
37	G6	O	Grid Segment Output5
38	G5	O	Grid Segment Output 6
39	G4	O	Grid Segment Output7
40	G3	O	Grid Segment Output 8
41	G2	O	Grid Segment Output 9
42	G1	O	Grid Segment Output 10
43	VDD	-	Voltage Supply (+5V)
44	VSS	-	GND

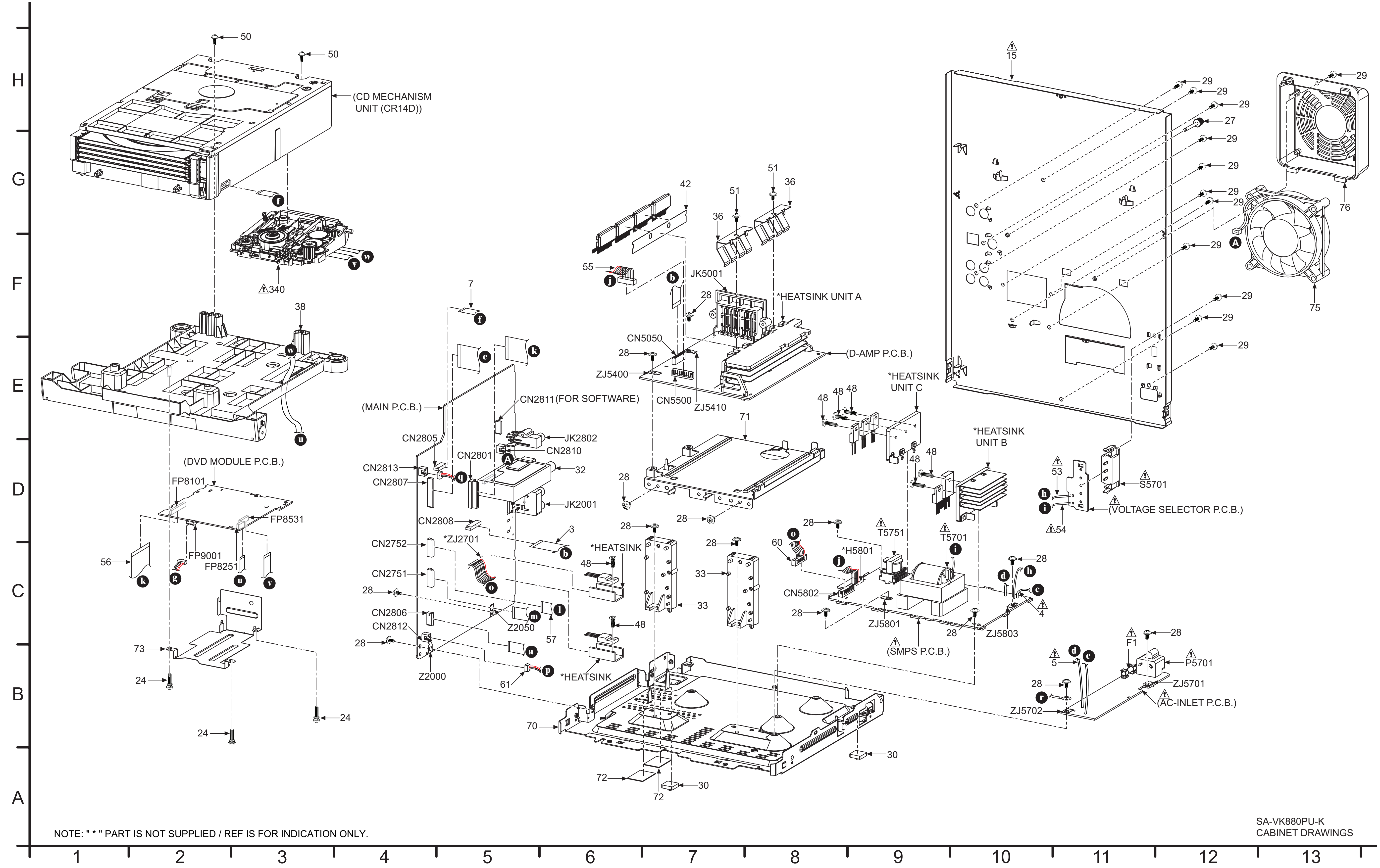
21 Exploded View and Replacement Parts List

21.1. Exploded View and Mechanical Replacement Part List

21.1.1. Cabinet Parts Location



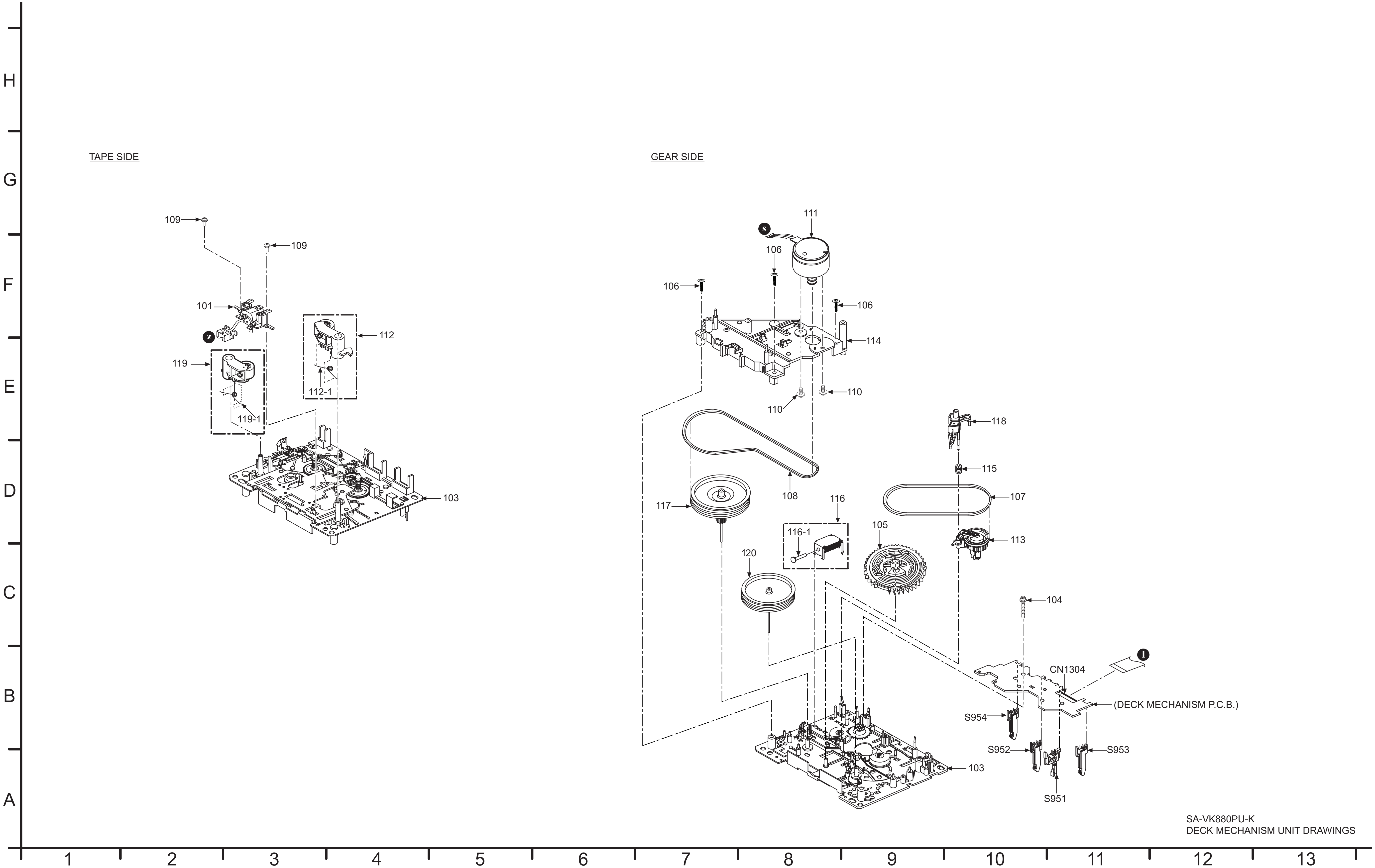
NOTE: " * " REF IS FOR INDICATION ONLY.



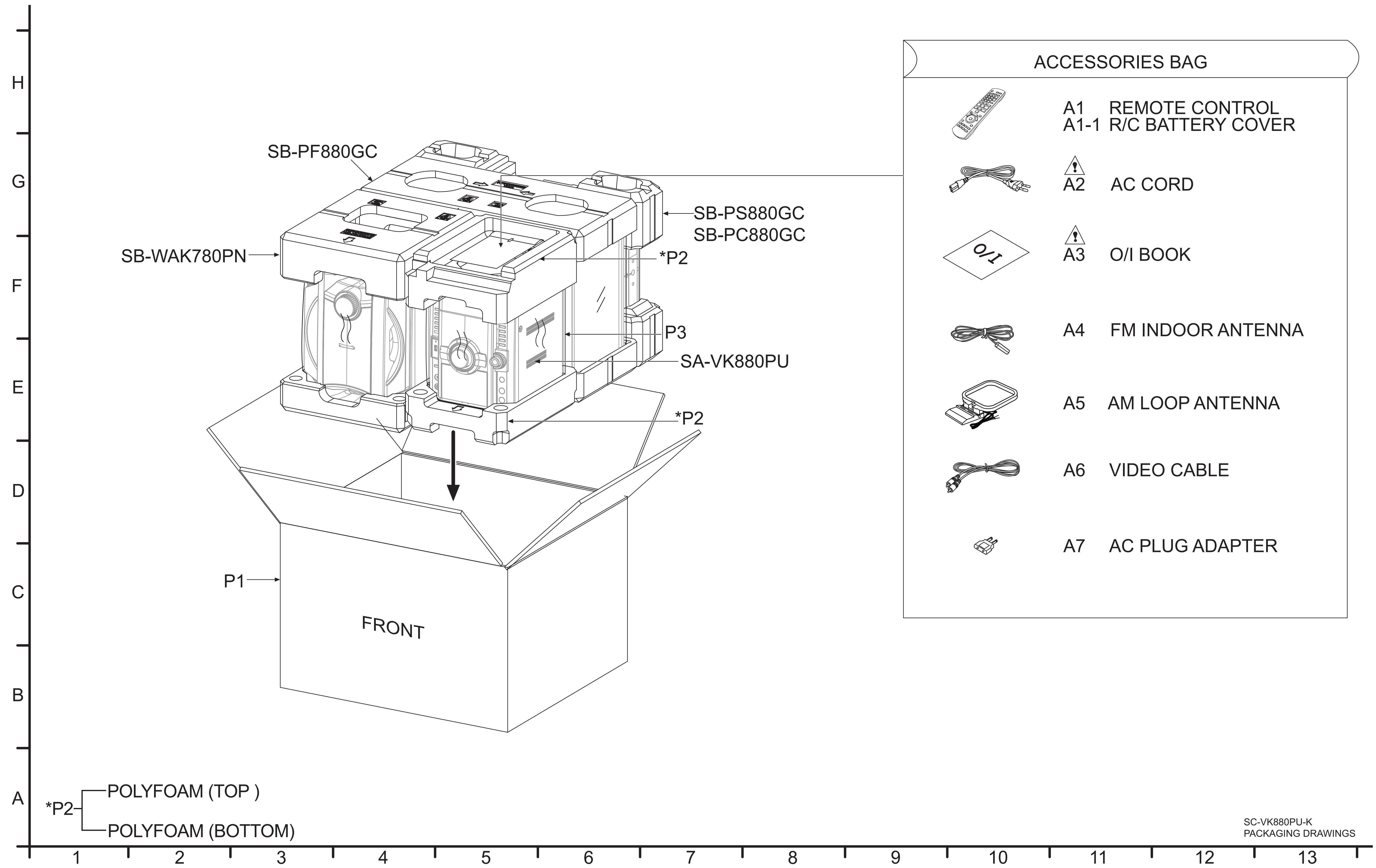
NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.

SA-VK880PU-K
CABINET DRAWINGS

21.1.2. Deck Mechanism Parts Location (RAAX0005)



21.1.3. Packaging



21.1.4. Mechanical Replacement Part List

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.
After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
After the end of this period, the assembly will no longer be available.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- All parts mentioned are supplied by PAVCSG unless indicated likewise.
- Parts mentioned [SPG] in the Remarks column are supplied by PAVC-CSG.
- Reference for O/I book languages are as follows:

Ar:	Arabic	Du:	Dutch	It:	Italian	Sp:	Spanish
Cf:	Canadian French	En:	English	Ko:	Korean	S:	Swedish
Cz:	Czech	Fr:	French	Po:	Polish	Co:	Traditional Chinese
Da:	Danish	Ge:	German	Ru:	Russian	Cn:	Simplified Chinese
Pe:	Persian	Ur:	Ukraine	Pr:	Portuguese		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	RDGX0040	VOLUME GEAR	1	
	2	REEX0740	10P FFC (MUSIC-MAIN)	1	
	3	REEX0881	17P FFC (MAIN-DAMP)	1	
⚠	4	REZX0023-1	BLK WIRE (AC INLET-SMPS)	1	
⚠	5	REZX0024-1	RED WIRE (AC INLET-SMPS)	1	
	6	REEX0883	27P FFC (MAIN-PANEL)	1	
	7	REEX0904-J	11P FFC (OPU-MAIN)	1	
	8	RGCX0010-W	VOLUME LIGHT REFLECTOR	1	
	9	RFKGAVK880GA	FRONT PANEL ASS'Y	1	
	10	RGKX0482-2S	VOLUME ORNAMENT	1	
	11	RGKX0483B-K1	CD LID	1	
	12	RGKX0488A-B	DYNAMIC BASS ORNAMENT	1	
	13	RGLX0164-B	VOLUME LIGHT PIECE	1	
	14	RGLX0167-Q	POWER LIGHT PIECE	1	
⚠	15	RGRX0070P-E1	REAR PANEL	1	
	16	RGUX0764C-2S	MAIN FUNCTION BUTTON L	1	
	17	RGUX0765-4S1	DYNAMIC BASS BUTTON	1	
	18	RGUX0766A-K	5CD CHANGE BUTTON	1	
	19	RGUX0767C-K	POWER CONTROL BUTTON	1	
	20	RGUX0768-K	CASSETTE EJECT BUTTON	1	
	21	RGUX0777B-2S	MAIN FUNCTION BUTTON R	1	
	22	RGWX0056-1K1	MIC VOL KNOB	1	
	23	RGWX0072-S	VOLUME KNOB	1	
	24	RHD26043-1	SCREW	5	
	25	RHD26046-L	SCREW	15	
	26	RHD30007-K2J	SCREW	6	
	27	RHD30070	SCREW	1	
	28	RHD30111-31	SCREW	14	
	29	RHD30119-S	SCREW	17	
	30	RKA0072-KJ	LEG CUSHION	4	
	31	RKFX0143A-K1	CASSETTE LID	1	
	32	J3CCBB000010	TUNER PACK	1	
	33	RMAX0333-2	CHASSIS SUPPORT	2	
	34	RMBV0042-2	CASSETTE LID SPRING	1	
	35	RMBX0086-1	CD LID OPEN SPRING	1	
	36	RMC0465	TR SPRING	2	
	37	RMGX0033	CUSHION RUBBER	2	
	38	RMKX0151C	CD CHASSIS	1	
	39	RMNV0059	LED HOLDER	3	
	40	RMNV0079-1	FL HOLDER	1	
	42	RMZX0038	IC INSULATOR	1	
	43	RHD30008	SCREW	1	
	44	RMNX0287A	USB JACK HOLDER	1	
	45	RMNX0190	LED HOLDER	3	
	46	RUS757ZAA	CASSETTE HALF SPRING	2	
	47	RXGX0002	DAMPER GEAR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	48	XTB3+10JFJ	SCREW	7	
	49	XTV3+10GFJ-M	SCREW	4	
	50	XTW3+12TFJ	SCREW	2	
	51	XTW3+8TFJ	SCREW	2	
	52	REXX0690-1	5P WIRE (USB-DVD MODULE)	1	
⚠	53	REXX0686-1	WHITE WIRE (VOLT SELECTOR SMPS)	1	
⚠	54	REXX0687-1	RED WIRE (VOLT SELECTOR SMPS)	1	
	55	REXX0683-1	8P WIRE (SMPS-DAMP)	1	
	56	REEX0905	50P FFC (MAIN-DVD MODULE)	1	
	57	REEX0987	10P FFC (MAIN-DECK MECH)	1	
	58	REEX0988	12P WIRE (MAIN-DECK)	1	
	59	REXX0679-1	7P WIRE (PANEL-MIC)	1	
	60	REXX0680	11P WIRE (MAIN-SMPS)	1	
	61	REXX0681	2P WIRE (MAIN-USB) - (MUSIC MAIN)	2	
	64	REXX1028	2P WIRE (MIC-AC INLET)	1	
	65	RWJ0102050KR	2P WIRE (MOTOR)	1	
	66	RWJ1103055SS	3P WIRE (PANEL-REMOTE)	1	
	67	RWJ1108055SS	8P WIRE (PANEL-VOLUME)	1	
⚠	69	RKMX0144A-K	TOP CABINET	1	
	70	RMKX0148-4	BOTTOM CHASSIS	1	
	71	RMKX0149-2	INNER CHASSIS	1	
	72	RMVX0126	HOLE COVER	2	
	73	RSCX0216	SHIELD PLATE	1	
	74	RMQX0319-W	VOLUME DIFFUSER	1	
	75	L6FALEFH0023	FAN UNIT	1	
	76	RMQX0318-K2	FAN COVER	1	
			CASSETTE DECK		
	101	RED0064-2	R/P HEAD BLOCK SUB ASSY	1	
	103	RFKJSTR280PP	MAIN CHASSIS ASS'Y	1	
	104	XYC2+JF17FJ	PCB EARTH SCREW	1	
	105	RDK0026-4	MAIN GEAR	1	
	106	XTW26+10SFJ	SUB-CHASSIS SCREW	3	
	107	RDV0033-4	WINDING BELT	1	
	108	RDV0034-2	CAPSTAN BELT A	1	
	109	XTW2+5LFJ	HEAD BLOCK UNIT SCREW	2	
	110	RHD26022-1	MOTOR SCREW	2	
	111	REM0120	CAPSTAN MOTOR ASS'Y	1	
	112	RXL0124	PINCH ROLLER F ASSY	1	
	112-1	RMB0401	PINCH ARM SPRING 'F'	1	
	113	RXL0126	WINDING ARM ASSY	1	
	114	RMK0283A-2	SUB-CHASSIS	1	
	115	RMB0408	THRUST SPRING	1	
	116	RXQ0470-2	PLUNGER ASSY	1	
	116-1	RMS0398-1	MOVING CORE	1	
	117	RXF0061-1	FLYWHEEL F ASSY	1	
	118	RML0372-2	WINDING LEVER	1	
	119	RXL0125	PUNCH ROLLER R ASS'Y	1	
	119-1	RMB0402	PUNCH ARM SPRING R	1	
	120	RXF0062-1	FLYWHEEL R ASS'Y	1	
			TRAVERSE DECK		
⚠	340	RD-DDTX004-V	TRAVERSE ASS'Y	1	(RTL)

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PACKING MATERIALS		
	P1	RPGX2223	PACKING CASE	1	
	P2	RPNX0534-2	POLYFOAM	1	
	P3	RPFX0198	MIRAMAT SHEET	1	
			ACCESSORIES		
	A1	N2QAYB000423	REMOTE CONTROL	1	
	A1-1	RKK-PT470EBK	R/C BATTERY COVER	1	
⚠	A2	K2CQ2CA00007	AC CORD	1	
⚠	A3	RQTX0289-M	O/I BOOK (En/Sp)	1	
	A4	RSAX0002	FM INDOOR ANTENNA	1	
	A5	N1DYYYY00003	AM LOOP ANTENNA	1	
	A6	K2KA2CA00011	VIDEO CABLE	1	
	A7	K2DAYYY00002	AC PLUG ADAPTER	1	

21.2. Electrical Replacement Part List

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.
After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- Capacitor value are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF), F=Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1000 (OHM).
- All parts mentioned are supplied by PAVCSG unless indicated likewise.
- Parts mentioned [SPG] in the Remarks column are supplied by PAVC-CSG.

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIRCUIT BOARDS		
	PCB1	RFKBX0681F-C	DVD MODULE P.C.B	1	(RTL)
	PCB2	REPX0722B	DECK P.C.B	1	(RTL)
	PCB3	REPX0731B	D-AMP P.C.B	1	(RTL)
	PCB4	REPX0757D	MAIN P.C.B	1	(RTL)
	PCB5	REPX0737C	PANEL P.C.B	1	(RTL)
	PCB6	REPX0737C	SIDE BAR (L) P.C.B	1	(RTL)
	PCB7	REPX0737C	SIDE BAR (R) P.C.B	1	(RTL)
	PCB8	REPX0737C	VOLUME P.C.B	1	(RTL)
	PCB9	REPX0737C	REMOTE SENSOR P.C.B	1	(RTL)
	PCB10	REPX0737C	MUSIC PORT P.C.B	1	(RTL)
	PCB11	REPX0737C	USB P.C.B	1	(RTL)
⚠	PCB12	REPX0751G	SMPS P.C.B	1	(RTL)
⚠	PCB13	REPX0751G	AC INLET P.C.B	1	(RTL)
	PCB14	REPX0740C	DECK MECHANISM P.C.B	1	(RTL)
			INTEGRATED CIRCUITS		
	IC971	CNB13030R2AU	IC	1	
	IC1000	C1AA00000612	IC	1	
	IC1001	AN7326K	IC	1	
	IC2002	C0CBCBC00140	IC	1	
	IC2101	C1AB00002735	IC	1	
	IC2104	C0ABCB000088	IC	1	
	IC2380	C0ABBB000230	IC	1	
	IC2801	RFKWMVK880GC	IC	1	
	IC2802	RFKWEVK880GC	IC	1	
	IC2900	C9ZB00000461	IC	1	
	IC4000	C0DAAYH00001	IC	1	
	IC5000	C1BA00000492	IC	1	
	IC5200	C1BA00000492	IC	1	
	IC5300	C1BA00000492	IC	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC5400	C1BA00000492	IC	1	
	IC5500	C0JBAB000902	IC	1	
	IC5701	C5HACYY00005	IC	1	
	IC5799	MIP4110MSSCF	IC	1	
	IC5801	C0DABFC00002	IC	1	
	IC5899	C0DAEMZ00001	IC	1	
	IC6000	C1AB00003130	IC	1	
	IC6601	C0HBB0000057	IC	1	
	IC6931	C1AB00002773	IC	1	
	IC8001	MN2DS0018MP	IC	1	
	IC8051	C3ABPG000160	IC	1	
	IC8111	C0DBFZG00001	IC	1	
	IC8251	C0GBG0000048	IC	1	
	IC8421	C0FBBY000060	IC	1	
	IC8422	C0FBAK000026	IC	1	
	IC8601	C0EBA0000039	IC	1	
	IC8606	C0EBE0000456	IC	1	
	IC8611	RFKBX0681F-C	IC	1	(RTL)
	IC8651	RFKWMH41B323	IC	1	[SPG]
	IC8691	C0JBAA000502	IC	1	
	IC8695	C0JBAA000502	IC	1	
	IC9001	C0JBAZ001251	IC	1	
	IC9002	C0JBAZ001251	IC	1	
	IC9003	C0JBAB000908	IC	1	
	IC9005	C0DBZYY00266	IC	1	
			TRANSISTORS		
	Q1303	B1GBCFGH0001	TRANSISTOR	1	
	Q1304	B1GDCFGH0002	TRANSISTOR	1	
	Q1306	B1ABCF000176	TRANSISTOR	1	
	Q1307	B1ABCF000176	TRANSISTOR	1	
	Q1309	B1AAGC000006	TRANSISTOR	1	
	Q1310	B1AAGC000006	TRANSISTOR	1	
	Q1312	B1ABCF000011	TRANSISTOR	1	
	Q1314	B1GDCFGH0002	TRANSISTOR	1	
	Q1315	B1ACCF000094	TRANSISTOR	1	
	Q1316	2SD09650RA	TRANSISTOR	1	
	Q1317	B1ABGC000005	TRANSISTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	Q2002	B1GDCFJJ0047	TRANSISTOR	1	
	Q2003	B1GBCFJJ0051	TRANSISTOR	1	
	Q2004	2SD0601AHL	TRANSISTOR	1	
	Q2005	B1ADCE000012	TRANSISTOR	1	
	Q2011	B1GBCFJJ0051	TRANSISTOR	1	
	Q2012	B1GBCFJJ0051	TRANSISTOR	1	
	Q2051	B1GDCFJJ0047	TRANSISTOR	1	
	Q2052	B1HBECA00004	TRANSISTOR	1	
	Q2221	B1HBECA00004	TRANSISTOR	1	
	Q2300	B1ABCF000176	TRANSISTOR	1	
	Q2340	B1HBECA00004	TRANSISTOR	1	
	Q2342	B1GDCFGA0018	TRANSISTOR	1	
	Q2370	B1ABGC000005	TRANSISTOR	1	
	Q2371	B1GDCFGA0018	TRANSISTOR	1	
	Q2600	B1ABCF000176	TRANSISTOR	1	
	Q2601	B1GDCFGA0018	TRANSISTOR	1	
	Q2602	B1ABGC000005	TRANSISTOR	1	
	Q2605	B1GBCFLL0037	TRANSISTOR	1	
	Q2701	B1GBCFJN0033	TRANSISTOR	1	
	Q2702	B1ACCF000094	TRANSISTOR	1	
	Q2800	B1GBCFJJ0051	TRANSISTOR	1	
	Q2801	B1ABCF000176	TRANSISTOR	1	
	Q2810	B1AAKD000012	TRANSISTOR	1	
	Q2900	B1BABK000001	TRANSISTOR	1	
	Q2912	B1GBCFJN0033	TRANSISTOR	1	
	Q2942	B1ACCF000094	TRANSISTOR	1	
	Q2943	B1ABCF000176	TRANSISTOR	1	
	Q2944	B1BACD000018	TRANSISTOR	1	
	Q2948	B1ABCF000176	TRANSISTOR	1	
	Q2949	B1ABCF000176	TRANSISTOR	1	
	Q4001	B1GBCFLL0037	TRANSISTOR	1	
	Q4002	B1BCCG000002	TRANSISTOR	1	
	Q4003	B1ADCE000012	TRANSISTOR	1	
	Q4004	B1AAKD000012	TRANSISTOR	1	
	Q4006	B1ADCE000012	TRANSISTOR	1	
	Q4007	B1BACG000023	TRANSISTOR	1	
	Q4008	B1AAKD000012	TRANSISTOR	1	
	Q5100	B1BCCG000002	TRANSISTOR	1	
	Q5101	B1ABCF000176	TRANSISTOR	1	
	Q5102	B1ABCF000176	TRANSISTOR	1	
	Q5601	B1ABCF000176	TRANSISTOR	1	
	Q5602	B1ABCF000176	TRANSISTOR	1	
	Q5603	B1ADCE000012	TRANSISTOR	1	
	Q5604	B1ABCF000176	TRANSISTOR	1	
	Q5720	2SC3940ARA	TRANSISTOR	1	
	Q5721	2SA207700L	TRANSISTOR	1	
	Q5722	B1ABCF000176	TRANSISTOR	1	
	Q5802	B1ABCF000176	TRANSISTOR	1	
	Q5803	2SC3940ARA	TRANSISTOR	1	
	Q5860	2SA207700L	TRANSISTOR	1	
	Q5861	B1ABCF000176	TRANSISTOR	1	
	Q5862	B1ABCF000176	TRANSISTOR	1	
	Q5898	B1ABGC000005	TRANSISTOR	1	
	Q6511	B1GBCFJN0033	TRANSISTOR	1	
	Q6641	B1GBCFJN0033	TRANSISTOR	1	
	Q6906	B1GBCFJJ0051	TRANSISTOR	1	
	Q6907	B1GBCFJJ0051	TRANSISTOR	1	
	Q6908	B1GBCFJJ0051	TRANSISTOR	1	
	Q8031	B1ABGC000005	TRANSISTOR	1	
	Q8321	2SB1218ARL	TRANSISTOR	1	
	Q8325	2SB1218ARL	TRANSISTOR	1	
	Q8331	2SB1218ARL	TRANSISTOR	1	
	Q8335	2SB1218ARL	TRANSISTOR	1	
	Q8341	2SB1218ARL	TRANSISTOR	1	
	Q8551	2SD1819A0L	TRANSISTOR	1	
	Q8552	B1ADGB000008	TRANSISTOR	1	
	Q8561	2SD1819A0L	TRANSISTOR	1	
	Q8562	B1ADGB000008	TRANSISTOR	1	
	Q8563	B1CFHA000002	TRANSISTOR	1	
	Q8564	B1CFHA000002	TRANSISTOR	1	
	Q8565	2SD1819A0L	TRANSISTOR	1	
	QR4003	B1GBCFLL0037	TRANSISTOR	1	
	QR4004	B1GBCFLL0037	TRANSISTOR	1	
	QR5801	UNR221400L	TRANSISTOR	1	
	QR5802	B1GDCFGA0018	TRANSISTOR	1	
	QR5810	B1GBCFLL0037	TRANSISTOR	1	
	QR8031	B1GDCFGA0018	TRANSISTOR	1	
	QR8420	UNR521100L	TRANSISTOR	1	
	QR9030	B1GDCFJJ0002	TRANSISTOR	1	
			DIODES		
	D951	MA2C16500E	DIODE	1	
	D1111	B3AAA0001031	DIODE	1	
	D1301	B0ACCK000005	DIODE	1	
	D2332	B0ADCC000002	DIODE	1	
	D2601	MA2J1110GL	DIODE	1	
	D2603	MA2J1110GL	DIODE	1	
	D2702	B0ADCJ000020	DIODE	1	
	D2728	B0BC5R6A0266	DIODE	1	
	D2729	B0BC8R2A0266	DIODE	1	
	D2801	MA2J1110GL	DIODE	1	
	D2802	MA2J1110GL	DIODE	1	
	D2803	MA2J1110GL	DIODE	1	
	D2804	MA2J1110GL	DIODE	1	
	D2810	MA2J1110GL	DIODE	1	
	D2811	B0BC6R8A0266	DIODE	1	
	D2900	MA2J1110GL	DIODE	1	
	D2901	B0BC035A0007	DIODE	1	
	D2903	B0EAMM000057	DIODE	1	
	D2942	MAZ81200ML	DIODE	1	
	D2943	MA2J1110GL	DIODE	1	
	D2944	B0BC5R6A0266	DIODE	1	
	D2945	B0EAKM000117	DIODE	1	
	D2946	B0ADCJ000020	DIODE	1	
	D2948	B0EAKM000117	DIODE	1	
	D4000	B0EAMM000057	DIODE	1	
	D4001	B0BC024A0267	DIODE	1	
	D4002	B0JAME000114	DIODE	1	
	D4004	B0BC010A0265	DIODE	1	
	D4005	MA2J1110GL	DIODE	1	
	D4008	B0BC8R2A0266	DIODE	1	
	D5001	B0HCSP000001	DIODE	1	
	D5002	B0HCSP000001	DIODE	1	
	D5003	B0HCSP000001	DIODE	1	
	D5004	B0HCSP000001	DIODE	1	
	D5100	MA2J1110GL	DIODE	1	
	D5109	B0BC9R1A0266	DIODE	1	
	D5201	B0HCSP000001	DIODE	1	
	D5202	B0HCSP000001	DIODE	1	
	D5203	B0HCSP000001	DIODE	1	
	D5204	B0HCSP000001	DIODE	1	
	D5301	B0HCSP000001	DIODE	1	
	D5302	B0HCSP000001	DIODE	1	
	D5303	B0HCSP000001	DIODE	1	
	D5304	B0HCSP000001	DIODE	1	
	D5401	B0HCSP000001	DIODE	1	
	D5402	B0HCSP000001	DIODE	1	
	D5403	B0HCSP000001	DIODE	1	
	D5404	B0HCSP000001	DIODE	1	
	D5501	MA2J1110GL	DIODE	1	
	D5502	MA2J1110GL	DIODE	1	
	D5503	MAZ8051GML	DIODE	1	
	D5701	B0FBAR000041	DIODE	1	
	D5702	B0ZAZ0000052	DIODE	1	
	D5721	B0BC010A0007	DIODE	1	
	D5722	B0BC019A0007	DIODE	1	
	D5723	MA2J1110GL	DIODE	1	
	D5724	MA2J1110GL	DIODE	1	
	D5725	B0BC6R100010	DIODE	1	
	D5726	B0EAKM000117	DIODE	1	
	D5727	MA2J1110GL	DIODE	1	
	D5728	MA2J1110GL	DIODE	1	
	D5729	B0EAMM000057	DIODE	1	
	D5730	MA2J1110GL	DIODE	1	
	D5731	B0EAMM000057	DIODE	1	
	D5732	B0BC035A0007	DIODE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D5793	B0HAMP000094	DIODE	1	
	D5797	MA2J7280GL	DIODE	1	
	D5798	B0HAMP000094	DIODE	1	
	D5801	B0HBSM000043	DIODE	1	
	D5802	B0HBSM000043	DIODE	1	
	D5803	B0HFRJ000012	DIODE	1	
	D5804	B0EAMM000057	DIODE	1	
	D5805	B0EAMM000057	DIODE	1	
	D5806	MAZ8075GML	DIODE	1	
	D5807	MA2J1110GL	DIODE	1	
	D5809	MA2J1110GL	DIODE	1	
	D5896	B0EAMM000057	DIODE	1	
	D6458	B3AAA0000803	DIODE	1	
	D6511	B3AEA0000127	DIODE	1	
	D6512	B3AEA0000127	DIODE	1	
	D6602	B3AEA0000127	DIODE	1	
	D6604	B3AEA0000127	DIODE	1	
	D6641	B3AEA0000127	DIODE	1	
	D6672	B0BC5R1A0266	DIODE	1	
	D6930	B0BC5R1A0266	DIODE	1	
	D8211	MA2J1110GL	DIODE	1	
	DZ2810	B0BC5R6A0266	DIODE	1	
	DZ4006	B0JCPD000025	DIODE	1	
	DZ4030	B0BC7R5A0266	DIODE	1	
⚠	DZ5701	ERZV10V511CS	ZNR	1	
			VARISTORS		
	VA1110	EZJZ1V171AA	VARISTOR	1	
	VA1120	EZJZ1V171AA	VARISTOR	1	
			VARIABLE RESISTORS		
	VR6001	EVUE27FK2B53	MIC VOL JOG	1	
	VR6500	EVEKE2F3524B	VOLUME JOG	1	
	VR6630	K9AA024A0008	BASS CONTROL JOG	1	
			SWITCHES		
	S951	K0J1BB000017	SW MODE	1	
	S952	K0J1BB000021	SW HALF	1	
	S953	K0J1BB000021	SW REC	1	
	S954	K0J1BB000021	SW RECINH-R	1	
⚠	S5701	K0ABCA000007	SW AC VOLTAGE SELECTOR	1	
	S6100	EVQ21405RJ	SW POWER	1	
	S6101	EVQ21405RJ	SW USB REC	1	
	S6103	EVQ21405RJ	SW SURROUND ENCHANCER	1	
	S6104	EVQ21405RJ	SW SUBWOOFER	1	
	S6106	EVQ21405RJ	SW TAPE REC	1	
	S6108	EVQ21405RJ	SW H.BASS	1	
	S6201	EVQ21405RJ	SW OPEN/CLOSE	1	
	S6202	EVQ21405RJ	SW EXCHANGE	1	
	S6203	EVQ21405RJ	SW DISC 1	1	
	S6204	EVQ21405RJ	SW DISC 2	1	
	S6205	EVQ21405RJ	SW DISC 3	1	
	S6206	EVQ21405RJ	SW DISC 4	1	
	S6207	EVQ21405RJ	SW DISC 5	1	
	S6208	EVQ21405RJ	SW STOP/DEMO	1	
	S6300	EVQ21405RJ	SW FORWARD	1	
	S6301	EVQ21405RJ	SW MANUAL EQ	1	
	S6302	EVQ21405RJ	SW REWIND	1	
	S6303	EVQ21405RJ	SW USB	1	
	S6304	EVQ21405RJ	SW TAPE	1	
	S6306	EVQ21405RJ	SW DVD/CD	1	
	S6307	EVQ21405RJ	SW FM/AM	1	
	S6308	EVQ21405RJ	SW EXT-IN	1	
	S6820	EVQ21405RJ	SW OPEN	1	
			CONNECTORS		
	CN1113	K1KA05BA0061	5P CONNECTOR	1	
	CN1301	K1MY05AA0043	5P CONNECTOR	1	
	CN1303	K1MN12B00014	12P CONNECTOR	1	
	CN1304	K1MN10B00104	10P CONNECTOR	1	
	CN2751	K1MN12AA0003	12P CONNECTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	CN2752	K1MN10AA0003	10P CONNECTOR	1	
	CN2801	K1MY50AA0029	50P CONNECTOR	1	
	CN2805	K1MN11AA0003	11P CONNECTOR	1	
	CN2806	K1MN10AA0003	10P CONNECTOR	1	
	CN2807	K1MY27AA0124	27P CONNECTOR	1	
	CN2808	K1MN17AA0004	17P CONNECTOR	1	
	CN2810	K1KA02AA0186	2P CONNECTOR	1	
	CN2811	K1MN08A00064	8P CONNECTOR	1	
	CN2812	K1KA02AA0186	2P CONNECTOR	1	
	CN2813	K1KA02AA0186	2P CONNECTOR	1	
	CN5050	K1MN17AA0004	17P CONNECTOR	1	
	CN5500	K1KA08AA0180	8P CONNECTOR	1	
	CN5802	K1KA11AA0194	11P CONNECTOR	1	
	CN6001	K1MY27AA0124	27P CONNECTOR	1	
	CN6012	K1KA04AA0031	4P CONNECTOR	1	
	CN6014	K1KA04AA0031	4P CONNECTOR	1	
	CN6602	K1KB04A00046	4P CONNECTOR	1	
	CN6604	K1KB04A00046	4P CONNECTOR	1	
	CN6702	K1KA07BA0061	7P CONNECTOR	1	
	CN6807	K1MN10AA0003	10P CONNECTOR	1	
	FP8101	K1MN50AA0082	50P CONNECTOR	1	
	FP8251	K1MN07AA0076	7P CONNECTOR	1	
	FP8531	K1MY26AA0021	26P CONNECTOR	1	
	FP9001	K1KA05BA0014	5P CONNECTOR	1	
			COILS AND INDUCTORS		
	L1301	G2ZZ00000044	BIAS OSC COIL	1	
	L1302	G0C470JA0055	INDUCTOR	1	
	L2001	J0JBC0000015	INDUCTOR	1	
	L2003	J0JBC0000015	INDUCTOR	1	
	L2004	J0JBC0000015	INDUCTOR	1	
	L2005	J0JBC0000015	INDUCTOR	1	
	L2006	G0C470JA0055	INDUCTOR	1	
	L2552	G0C220JA0055	INDUCTOR	1	
	L2600	G0C3R3JA0027	INDUCTOR	1	
	L2900	G0C220JA0055	INDUCTOR	1	
	L2901	J0JKB0000020	INDUCTOR	1	
	L2910	G0A220GA0026	CHOKE COIL	1	
	L4000	G0A200D00002	CHOKE COIL	1	
	L4001	G0A101ZA0028	CHOKE COIL	1	
	L4002	G0A200D00002	CHOKE COIL	1	
	L4003	G0A200D00002	CHOKE COIL	1	
	L4005	G0A200D00002	CHOKE COIL	1	
	L5000	G0A150L00003	CHOKE COIL	1	
	L5001	G0B9R5K00003	LINE FILTER	1	
	L5002	G0B9R5K00004	LINE FILTER	1	
	L5200	G0A150L00003	CHOKE COIL	1	
	L5201	G0B9R5K00003	LINE FILTER	1	
	L5300	G0A150L00003	CHOKE COIL	1	
	L5301	G0B9R5K00004	LINE FILTER	1	
	L5400	G0A150L00003	CHOKE COIL	1	
	L5401	G0B9R5K00003	LINE FILTER	1	
	L5402	G0B9R5K00004	LINE FILTER	1	
	L5500	J0JKB0000020	INDUCTOR	1	
	L5501	J0JKB0000020	INDUCTOR	1	
⚠	L5703	ELF22V035B	LINE FILTER	1	
	L6000	J0JBC0000019	INDUCTOR	1	
	L6003	J0JBC0000019	INDUCTOR	1	
	L6007	J0JBC0000019	INDUCTOR	1	
	L6671	J0JBC0000019	INDUCTOR	1	
	L6801	J0JBC0000019	INDUCTOR	1	
	L6802	J0JBC0000019	INDUCTOR	1	
	L6811	J0JBC0000019	INDUCTOR	1	
	L6812	J0JBC0000019	INDUCTOR	1	
	L6851	J0JBC0000019	INDUCTOR	1	
	L6863	J0JBC0000019	INDUCTOR	1	
	L6864	J0JBC0000019	INDUCTOR	1	
	L8201	G1C100M00049	INDUCTOR	1	
	L8301	G1C100M00049	INDUCTOR	1	
	L8302	G1C100M00049	INDUCTOR	1	
	L8303	G1C100M00049	INDUCTOR	1	
	L8330	G1C100M00049	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	L8501	G1C100M00049	INDUCTOR	1	
	L8550	G1C100M00049	INDUCTOR	1	
	L9004	G1BYYYC00026	COMMON MODE EMI FILTER	1	
	LB8001	J0JHC0000045	INDUCTOR	1	
	LB8011	J0JHC0000045	INDUCTOR	1	
	LB8401	J0JCC0000308	INDUCTOR	1	
	LB8530	J0JHC0000045	INDUCTOR	1	
	LB8532	J0JDC0000045	INDUCTOR	1	
	LB8551	J0JDC0000045	INDUCTOR	1	
	LB8561	J0JDC0000045	INDUCTOR	1	
	LB8571	J0JDC0000045	INDUCTOR	1	
	LB9001	J0JCC0000042	INDUCTOR	1	
	LB9002	J0JHC0000117	INDUCTOR	1	
	LB9003	J0JHC0000117	INDUCTOR	1	
			TRANSFORMERS		
⚠	T2900	G4D1A0000117	SWITCHING TRANS-FORMER	1	
⚠	T5701	ETS42BN1A6AD	MAIN TRANSFORMER	1	
⚠	T5751	ETS19AB256AG	BACKUP TRANS-FORMER	1	
			COMPONENT COMBI-NATION		
	Z2000	K9ZZ00001279	EARTH PLATE	1	
	Z2001	K9ZZ00001279	EARTH PLATE	1	
	Z6601	B3RAB0000081	REMOTE CONTROL SENSOR	1	
	ZJ5400	K4CZ01000027	TERMINAL	1	
	ZJ5410	K4CZ01000027	TERMINAL	1	
	ZJ5701	K4CZ01000027	TERMINAL	1	
	ZJ5702	K4CZ01000027	TERMINAL	1	
	ZJ5801	K4CZ01000027	TERMINAL	1	
	ZJ5803	K4CZ01000027	TERMINAL	1	
			PHOTO COUPLERS		
⚠	PC5701	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5702	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5720	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5799	B3PBA0000402	PHOTO COUPLER	1	
			OSCILLATORS		
	X2801	H0A327200097	CRYSTAL OSCILLA-TOR	1	
	X2802	H2B100500004	CRYSTAL OSCILLA-TOR	1	
	X5500	H2A6023A0011	CRYSTAL OSCILLA-TOR	1	
	X5501	H2A7003A0011	CRYSTAL OSCILLA-TOR	1	
	X8621	H0J270500131	CRYSTAL OSCILLA-TOR	1	
	X9004	H1A4805B0027	CRYSTAL OSCILLA-TOR	1	
			FL DISPLAY		
	FL6601	A2BB00000171	LCD DISPLAY	1	
			FUSE		
⚠	F1	K5D802BNA005	FUSE	1	
			FUSE HOLDERS		
	ZA5701	K3GE1ZZ00001	FUSE HOLDER	1	
	ZA5702	K3GE1ZZ00001	FUSE HOLDER	1	
			FUSE PROTECTOR		
⚠	FP2901	K5G401A00008	FUSE PROTECTOR	1	
			THERMISTORS		
⚠	TH5702	D4CAA2R20001	THERMISTOR	1	
⚠	TH5860	D4CC11040013	THERMISTOR	1	
			JACKS		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	JK1111	K1FY104B0011	USB CONNECTOR	1	
	JK2001	K2HA4YYB0002	JK VIDEO OUT	1	
	JK2802	K2HA204B0153	JK AUX IN	1	
	JK5001	K4AL12B00001	JK SPEAKER	1	
	JK6001	K2HB102J0038	JK MIC 1	1	
	JK6002	K2HB102J0038	JK MIC 2	1	
	JK6800	K2HC103A0031	JK HEADPHONE	1	
	JK6810	K2HC1YYA0002	JK MUSIC PORT	1	
⚠	P5701	K2AA2B000017	AC INLET	1	
			CHIP JUMPERS		
	D2301	D0GBR00JA008	0 1/16W	1	
	K1	D0GBR00JA008	0 1/16W	1	
	K4	D0GBR00JA008	0 1/16W	1	
	K8	D0GBR00JA008	0 1/16W	1	
	K1000	ERJ8GEY0R00V	0 1/4W	1	
	K1200	D0GBR00JA008	0 1/16W	1	
	K1210	D0GBR00JA008	0 1/16W	1	
	K2802	D0GBR00JA008	0 1/16W	1	
	K2803	D0GBR00JA008	0 1/16W	1	
	K2804	D0GBR00JA008	0 1/16W	1	
	K2805	D0GBR00JA008	0 1/16W	1	
	K5001	D0GDR00JA017	0 1/10W	1	
	K5201	D0GDR00JA017	0 1/10W	1	
	K5202	D0GBR00JA008	0 1/16W	1	
	K5251	D0GBR00JA008	0 1/16W	1	
	K5252	D0GBR00JA008	0 1/16W	1	
	K5253	D0GBR00JA008	0 1/16W	1	
	K5302	D0GBR00JA008	0 1/16W	1	
	K5405	D0GDR00JA017	0 1/10W	1	
	K5500	D0GBR00JA008	0 1/16W	1	
	K5781	D0GBR00JA008	0 1/16W	1	
	K5782	D0GBR00JA008	0 1/16W	1	
	K6012	D0GBR00JA008	0 1/16W	1	
	K6013	D0GBR00JA008	0 1/16W	1	
	K6016	D0GBR00JA008	0 1/16W	1	
	K6018	D0GBR00JA008	0 1/16W	1	
	K8001	D0GBR00JA008	0 1/16W	1	
	K8003	D0GBR00JA008	0 1/16W	1	
	K8006	D0GBR00JA008	0 1/16W	1	
	K8008	D0GBR00JA008	0 1/16W	1	
	K8100	D0GBR00JA008	0 1/16W	1	
	K8114	D0GBR00JA008	0 1/16W	1	
	K8115	D0GBR00JA008	0 1/16W	1	
	K8116	D0GBR00JA008	0 1/16W	1	
	K8117	D0GBR00JA008	0 1/16W	1	
	K8251	D0GBR00JA008	0 1/16W	1	
	K8252	D0GBR00JA008	0 1/16W	1	
	K8571	D0GBR00JA008	0 1/16W	1	
	L6002	D0GBR00JA008	0 1/16W	1	
	L8250	D0GBR00JA008	0 1/16W	1	
	LB1200	D0GDR00JA017	0 1/10W	1	
	LB1210	D0GDR00JA017	0 1/10W	1	
	LB8255	ERJ2GE0R00X	0 1/16W	1	
	LB8301	ERJ2GE0R00X	0 1/16W	1	
	LB8302	ERJ2GE0R00X	0 1/16W	1	
	LB8303	ERJ2GE0R00X	0 1/16W	1	
	LB8304	ERJ2GE0R00X	0 1/16W	1	
	LB8305	ERJ2GE0R00X	0 1/16W	1	
	LB8421	ERJ2GE0R00X	0 1/16W	1	
	LB8422	ERJ2GE0R00X	0 1/16W	1	
	LB8423	ERJ2GE0R00X	0 1/16W	1	
	LB8424	ERJ2GE0R00X	0 1/16W	1	
	LB8425	ERJ2GE0R00X	0 1/16W	1	
	LB8426	ERJ2GE0R00X	0 1/16W	1	
	LB8427	ERJ2GE0R00X	0 1/16W	1	
	LB8428	ERJ2GE0R00X	0 1/16W	1	
	LB8429	ERJ2GE0R00X	0 1/16W	1	
	LB8430	ERJ2GE0R00X	0 1/16W	1	
	LB8431	ERJ2GE0R00X	0 1/16W	1	
	LB8432	ERJ2GE0R00X	0 1/16W	1	
	LB8491	ERJ2GE0R00X	0 1/16W	1	
	LB8531	ERJ2GE0R00X	0 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	LB8690	ERJ2GE0R00X	0 1/16W	1	
	W30	D0GBR00JA008	0 1/16W	1	
	W31	D0GDR00JA017	0 1/10W	1	
	W32	D0GBR00JA008	0 1/16W	1	
	W34	D0GBR00JA008	0 1/16W	1	
	W2068	D0GDR00JA017	0 1/10W	1	
	W2069	D0GBR00JA008	0 1/16W	1	
	W2700	D0GDR00JA017	0 1/10W	1	
	W2701	D0GDR00JA017	0 1/10W	1	
	W2702	D0GDR00JA017	0 1/10W	1	
	W2705	D0GDR00JA017	0 1/10W	1	
	W2706	D0GBR00JA008	0 1/16W	1	
	W2707	D0GDR00JA017	0 1/10W	1	
	W2708	D0GBR00JA008	0 1/16W	1	
	W2711	D0GBR00JA008	0 1/16W	1	
	W2715	D0GBR00JA008	0 1/16W	1	
	W2716	D0GBR00JA008	0 1/16W	1	
	W2717	D0GBR00JA008	0 1/16W	1	
	W2718	D0GDR00JA017	0 1/10W	1	
	W2719	D0GDR00JA017	0 1/10W	1	
	W2721	D0GBR00JA008	0 1/16W	1	
	W2723	D0GDR00JA017	0 1/10W	1	
	W2724	D0GBR00JA008	0 1/16W	1	
	W2727	D0GDR00JA017	0 1/10W	1	
	W2729	D0GBR00JA008	0 1/16W	1	
	W2731	D0GDR00JA017	0 1/10W	1	
	W2732	D0GDR00JA017	0 1/10W	1	
	W2734	D0GDR00JA017	0 1/10W	1	
	W2735	D0GDR00JA017	0 1/10W	1	
	W2736	D0GDR00JA017	0 1/10W	1	
	W2737	D0GBR00JA008	0 1/16W	1	
	W2738	D0GDR00JA017	0 1/10W	1	
	W2739	D0GBR00JA008	0 1/16W	1	
	W2740	D0GBR00JA008	0 1/16W	1	
	W2742	D0GBR00JA008	0 1/16W	1	
	W2743	D0GDR00JA017	0 1/10W	1	
	W2744	D0GBR00JA008	0 1/16W	1	
	W2745	D0GDR00JA017	0 1/10W	1	
	W2746	D0GDR00JA017	0 1/10W	1	
	W2748	D0GDR00JA017	0 1/10W	1	
	W2749	D0GBR00JA008	0 1/16W	1	
	W2750	D0GDR00JA017	0 1/10W	1	
	W2751	D0GBR00JA008	0 1/16W	1	
	W2752	D0GDR00JA017	0 1/10W	1	
	W2753	D0GDR00JA017	0 1/10W	1	
	W2754	D0GBR00JA008	0 1/16W	1	
	W2755	D0GBR00JA008	0 1/16W	1	
	W2756	D0GDR00JA017	0 1/10W	1	
	W2763	D0GBR00JA008	0 1/16W	1	
	W2764	D0GDR00JA017	0 1/10W	1	
	W2767	D0GDR00JA017	0 1/10W	1	
	W2771	D0GDR00JA017	0 1/10W	1	
	W2781	D0GBR00JA008	0 1/16W	1	
	W2782	D0GDR00JA017	0 1/10W	1	
	W2792	D0GBR00JA008	0 1/16W	1	
	W2799	D0GDR00JA017	0 1/10W	1	
	W2800	D0GBR00JA008	0 1/16W	1	
	W2801	D0GBR00JA008	0 1/16W	1	
	W5007	D0GDR00JA017	0 1/10W	1	
	W5032	ERJ8GEY0R00V	0 1/4W	1	
	W5036	D0GBR00JA008	0 1/16W	1	
	W5059	D0GDR00JA017	0 1/10W	1	
	W5071	D0GDR00JA017	0 1/10W	1	
	W5780	D0GDR00JA017	0 1/10W	1	
	W5781	D0GBR00JA008	0 1/16W	1	
	W5782	D0GBR00JA008	0 1/16W	1	
	W5783	D0GBR00JA008	0 1/16W	1	
	W5784	D0GBR00JA008	0 1/16W	1	
	W5785	D0GBR00JA008	0 1/16W	1	
	W5801	D0GBR00JA008	0 1/16W	1	
	W5803	D0GDR00JA017	0 1/10W	1	
	W5804	D0GBR00JA008	0 1/16W	1	
	W5805	D0GDR00JA017	0 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	W5806	D0GDR00JA017	0 1/10W	1	
	W5807	D0GDR00JA017	0 1/10W	1	
	W6541	D0GDR00JA017	0 1/10W	1	
	W6570	D0GBR00JA008	0 1/16W	1	
			RESISTORS		
	LB8691	D0GA101JA023	100 1/16W	1	
	LB8692	D0GA101JA023	100 1/16W	1	
	LB8693	D0GA101JA023	100 1/16W	1	
	R952	D0AE821JA048	820 1/4W	1	
	R953	D0AE393JA048	39K 1/4W	1	
	R1101	D0GB330JA008	33 1/16W	1	
	R1102	D0GB152JA008	1.5K 1/16W	1	
	R1103	D0GB183JA008	18K 1/16W	1	
	R1104	D0GB103JA008	10K 1/16W	1	
	R1105	D0GB222JA008	2.2K 1/16W	1	
	R1106	D0GB104JA008	100K 1/16W	1	
	R1110	D0GB333JA008	33K 1/16W	1	
	R1111	D0GB182JA008	1.8K 1/16W	1	
	R1201	D0GB330JA008	33 1/16W	1	
	R1202	D0GB152JA008	1.5K 1/16W	1	
	R1203	D0GB183JA008	18K 1/16W	1	
	R1204	D0GB103JA008	10K 1/16W	1	
	R1205	D0GB222JA008	2.2K 1/16W	1	
	R1206	D0GB104JA008	100K 1/16W	1	
	R1210	D0GB333JA008	33K 1/16W	1	
	R1302	D0GB471JA008	470 1/16W	1	
	R1303	D0GB475JA008	4.7M 1/16W	1	
	R1304	D0GB223JA008	22K 1/16W	1	
	R1305	D0GB103JA008	10K 1/16W	1	
	R1309	D0AF471JA039	470 1/2W	1	
	R1314	D0GB102JA008	1K 1/16W	1	
	R1318	D0GB103JA008	10K 1/16W	1	
	R1319	D0GB123JA008	12K 1/16W	1	
	R1320	D0GB104JA008	100K 1/16W	1	
	R1321	D0GB470JA008	47 1/16W	1	
	R1322	D0GB823JA008	82K 1/16W	1	
	R1327	D0GB472JA008	4.7K 1/16W	1	
	R1328	D0GB153JA008	15K 1/16W	1	
	R1329	D0GB472JA008	4.7K 1/16W	1	
	R1330	ERD2FCVJ4R7T	4.7 1/4W	1	
	R1331	D0GB752JA008	7.5K 1/16W	1	
	R1332	D0GB103JA008	10K 1/16W	1	
	R1333	ERD2FCVJ4R7T	4.7 1/4W	1	
	R1334	D0GB223JA008	22K 1/16W	1	
	R1335	D0GB152JA008	1.5K 1/16W	1	
	R1337	D0GB103JA008	10K 1/16W	1	
	R1338	D0GB472JA008	4.7K 1/16W	1	
	R1339	D0GD103JA017	10K 1/10W	1	
	R1342	D0GB473JA008	47K 1/16W	1	
	R1343	D0GB332JA008	3.3K 1/16W	1	
	R1344	D0GB273JA008	27K 1/16W	1	
	R1345	D0GB102JA008	1K 1/16W	1	
	R1371	D0GB223JA008	22K 1/16W	1	
	R1374	D0GB471JA008	470 1/16W	1	
	R1376	D0GB472JA008	4.7K 1/16W	1	
	R2000	D0GBR00JA008	0 1/16W	1	
	R2001	D0GB102JA008	1K 1/16W	1	
	R2003	D0GB102JA008	1K 1/16W	1	
	R2007	D0GBR00JA008	0 1/16W	1	
	R2009	D0GB152JA008	1.5K 1/16W	1	
	R2010	D0GB152JA008	1.5K 1/16W	1	
	R2011	D0GB100JA008	10 1/16W	1	
	R2012	D0GB100JA008	10 1/16W	1	
	R2015	D0GB473JA008	47K 1/16W	1	
	R2016	D0GB473JA008	47K 1/16W	1	
	R2021	D0GB683JA008	68K 1/16W	1	
	R2022	D0GB683JA008	68K 1/16W	1	
	R2044	J0JHC0000034	INDUCTOR	1	
	R2045	J0JHC0000034	INDUCTOR	1	
	R2046	D0GB222JA008	2.2K 1/16W	1	
	R2047	D0GB222JA008	2.2K 1/16W	1	
	R2048	D0GB273JA008	27K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2051	D0GB102JA008	1K 1/16W	1	
	R2052	D0GB103JA008	10K 1/16W	1	
	R2053	D0GB563JA008	56K 1/16W	1	
	R2054	D0GB273JA008	27K 1/16W	1	
	R2055	D0GB152JA008	1.5K 1/16W	1	
	R2056	D0GB152JA008	1.5K 1/16W	1	
	R2057	D0GB332JA008	3.3K 1/16W	1	
	R2058	D0GB332JA008	3.3K 1/16W	1	
	R2101	D0GB473JA008	47K 1/16W	1	
	R2102	D0GB101JA008	100 1/16W	1	
	R2103	D0GB273JA008	27K 1/16W	1	
	R2104	D0GBR00JA008	0 1/16W	1	
	R2105	D0GB104JA008	100K 1/16W	1	
	R2108	D0GB104JA008	100K 1/16W	1	
	R2109	D0GBR00JA008	0 1/16W	1	
	R2111	D0GB472JA008	4.7K 1/16W	1	
	R2113	D0GB562JA008	5.6K 1/16W	1	
	R2114	D0GB472JA008	4.7K 1/16W	1	
	R2115	D0GB182JA008	1.8K 1/16W	1	
	R2116	D0GB103JA008	10K 1/16W	1	
	R2117	D0GB822JA008	8.2K 1/16W	1	
	R2119	D0GB472JA008	4.7K 1/16W	1	
	R2120	D0GB152JA008	1.5K 1/16W	1	
	R2121	D0GB333JA008	33K 1/16W	1	
	R2122	D0GBR00JA008	0 1/16W	1	
	R2124	D0GB822JA008	8.2K 1/16W	1	
	R2125	D0GB223JA008	22K 1/16W	1	
	R2133	D0GB472JA008	4.7K 1/16W	1	
	R2145	D0GBR00JA008	0 1/16W	1	
	R2193	D0GB682JA008	6.8K 1/16W	1	
	R2201	D0GB473JA008	47K 1/16W	1	
	R2202	D0GB101JA008	100 1/16W	1	
	R2203	D0GB273JA008	27K 1/16W	1	
	R2204	D0GBR00JA008	0 1/16W	1	
	R2205	D0GB104JA008	100K 1/16W	1	
	R2208	D0GB104JA008	100K 1/16W	1	
	R2209	D0GBR00JA008	0 1/16W	1	
	R2211	D0GB472JA008	4.7K 1/16W	1	
	R2213	D0GB562JA008	5.6K 1/16W	1	
	R2214	D0GB472JA008	4.7K 1/16W	1	
	R2215	D0GB182JA008	1.8K 1/16W	1	
	R2216	D0GB103JA008	10K 1/16W	1	
	R2217	D0GB822JA008	8.2K 1/16W	1	
	R2219	D0GB472JA008	4.7K 1/16W	1	
	R2220	D0GB152JA008	1.5K 1/16W	1	
	R2221	D0GB333JA008	33K 1/16W	1	
	R2222	D0GBR00JA008	0 1/16W	1	
	R2224	D0GB822JA008	8.2K 1/16W	1	
	R2225	D0GB223JA008	22K 1/16W	1	
	R2233	D0GB472JA008	4.7K 1/16W	1	
	R2245	D0GBR00JA008	0 1/16W	1	
	R2301	D0GB153JA008	15K 1/16W	1	
	R2302	D0GB562JA008	5.6K 1/16W	1	
	R2303	D0GB332JA008	3.3K 1/16W	1	
	R2304	D0GB123JA008	12K 1/16W	1	
	R2305	D0GB222JA008	2.2K 1/16W	1	
	R2306	D0GB824JA008	820K 1/16W	1	
	R2307	D0GBR00JA008	0 1/16W	1	
	R2308	D0GB102JA008	1K 1/16W	1	
	R2310	D0GB562JA008	5.6K 1/16W	1	
	R2311	D0GB1R0JA008	1.0 1/16W	1	
	R2312	D0GB332JA008	3.3K 1/16W	1	
	R2313	D0GB332JA008	3.3K 1/16W	1	
	R2314	D0GB1R0JA008	1.0 1/16W	1	
	R2317	D0GB152JA008	1.5K 1/16W	1	
	R2318	D0GB152JA008	1.5K 1/16W	1	
	R2319	D0GB180JA008	18 1/16W	1	
	R2320	D0GB180JA008	18 1/16W	1	
	R2321	D0GB180JA008	18 1/16W	1	
	R2322	D0GB180JA008	18 1/16W	1	
	R2323	D0GB180JA008	18 1/16W	1	
	R2324	D0GB180JA008	18 1/16W	1	
	R2325	D0GB180JA008	18 1/16W	1	
	R2326	D0GB180JA008	18 1/16W	1	
	R2331	D0GBR00JA008	0 1/16W	1	
	R2332	D0GB393JA008	39K 1/16W	1	
	R2333	D0GBR00JA008	0 1/16W	1	
	R2334	D0GB101JA008	100 1/16W	1	
	R2335	D0GB102JA008	1K 1/16W	1	
	R2336	D0GB333JA008	33K 1/16W	1	
	R2337	D0GB474JA008	470K 1/16W	1	
	R2338	D0GB102JA008	1K 1/16W	1	
	R2339	D0GB562JA008	5.6K 1/16W	1	
	R2342	D0GB104JA008	100K 1/16W	1	
	R2343	D0GB104JA008	100K 1/16W	1	
	R2344	D0GB472JA008	4.7K 1/16W	1	
	R2345	D0GB472JA008	4.7K 1/16W	1	
	R2347	D0GB273JA008	27K 1/16W	1	
	R2348	D0GB563JA008	56K 1/16W	1	
	R2351	D0GB102JA008	1K 1/16W	1	
	R2355	D0GBR00JA008	0 1/16W	1	
	R2356	D0GBR00JA008	0 1/16W	1	
	R2370	D0GB102JA008	1K 1/16W	1	
	R2371	D0GB332JA008	3.3K 1/16W	1	
	R2372	D0GB332JA008	3.3K 1/16W	1	
	R2373	D0GB272JA008	2.7K 1/16W	1	
	R2374	D0GB103JA008	10K 1/16W	1	
	R2375	D0GB103JA008	10K 1/16W	1	
	R2376	D0GB272JA008	2.7K 1/16W	1	
	R2377	D0GB103JA008	10K 1/16W	1	
	R2378	D0GB103JA008	10K 1/16W	1	
	R2379	D0GB104JA008	100K 1/16W	1	
	R2380	D0GB103JA008	10K 1/16W	1	
	R2381	D0GB103JA008	10K 1/16W	1	
	R2382	D0GB102JA008	1K 1/16W	1	
	R2383	D0GB273JA008	27K 1/16W	1	
	R2384	D0GB563JA008	56K 1/16W	1	
	R2385	D0GB182JA008	1.8K 1/16W	1	
	R2387	D0GB123JA008	12K 1/16W	1	
	R2388	D0GB123JA008	12K 1/16W	1	
	R2401	D0GB153JA008	15K 1/16W	1	
	R2402	D0GB562JA008	5.6K 1/16W	1	
	R2403	D0GB332JA008	3.3K 1/16W	1	
	R2404	D0GB123JA008	12K 1/16W	1	
	R2410	D0GB562JA008	5.6K 1/16W	1	
	R2411	D0GBR00JA008	0 1/16W	1	
	R2412	D0GBR00JA008	0 1/16W	1	
	R2439	D0GB562JA008	5.6K 1/16W	1	
	R2501	D0GB123JA008	12K 1/16W	1	
	R2502	D0GB682JA008	6.8K 1/16W	1	
	R2503	D0GB682JA008	6.8K 1/16W	1	
	R2504	D0GB153JA008	15K 1/16W	1	
	R2586	D0GB221JA008	220 1/16W	1	
	R2587	D0GB221JA008	220 1/16W	1	
	R2591	D0GB334JA008	330K 1/16W	1	
	R2601	D0GB123JA008	12K 1/16W	1	
	R2608	D0GB563JA008	56K 1/16W	1	
	R2609	D0GB561JA008	560 1/16W	1	
	R2610	D0GB223JA008	22K 1/16W	1	
	R2611	D0GB273JA008	27K 1/16W	1	
	R2612	D0GB393JA008	39K 1/16W	1	
	R2613	D0GB682JA008	6.8K 1/16W	1	
	R2614	D0GB683JA008	68K 1/16W	1	
	R2620	D0GB223JA008	22K 1/16W	1	
	R2627	D0GB473JA008	47K 1/16W	1	
	R2631	D0GB473JA008	47K 1/16W	1	
	R2633	D0GBR00JA008	0 1/16W	1	
	R2634	D0GB102JA008	1K 1/16W	1	
	R2636	D0GB104JA008	100K 1/16W	1	
	R2637	D0GB104JA008	100K 1/16W	1	
	R2638	D0GB392JA008	3.9K 1/16W	1	
	R2639	D0GB822JA008	8.2K 1/16W	1	
	R2640	D0GB333JA008	33K 1/16W	1	
	R2641	D0GB103JA008	10K 1/16W	1	
	R2642	D0GB104JA008	100K 1/16W	1	
	R2643	D0GB332JA008	3.3K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2644	D0GB102JA008	1K 1/16W	1	
	R2645	D0GB104JA008	100K 1/16W	1	
	R2646	D0GB472JA008	4.7K 1/16W	1	
	R2647	D0GB103JA008	10K 1/16W	1	
	R2648	D0GB103JA008	10K 1/16W	1	
	R2649	D0GB333JA008	33K 1/16W	1	
	R2650	D0GB333JA008	33K 1/16W	1	
	R2651	D0GB104JA008	100K 1/16W	1	
	R2652	D0GB822JA008	8.2K 1/16W	1	
	R2653	D0GB123JA008	12K 1/16W	1	
	R2654	D0GB273JA008	27K 1/16W	1	
	R2655	D0GB563JA008	56K 1/16W	1	
	R2656	D0GB123JA008	12K 1/16W	1	
	R2657	D0GB563JA008	56K 1/16W	1	
	R2659	D0GB222JA008	2.2K 1/16W	1	
	R2660	D0GB273JA008	27K 1/16W	1	
	R2661	D0GB153JA008	15K 1/16W	1	
	R2663	D0GB102JA008	1K 1/16W	1	
	R2668	D0GBR00JA008	0 1/16W	1	
	R2702	D0GB182JA008	1.8K 1/16W	1	
	R2703	D0GB182JA008	1.8K 1/16W	1	
	R2729	D0GB470JA008	47 1/16W	1	
	R2751	D0GB123JA008	12K 1/16W	1	
	R2752	D0GB223JA008	22K 1/16W	1	
	R2753	D0GB123JA008	12K 1/16W	1	
	R2754	D0GB223JA008	22K 1/16W	1	
	R2755	D0GB103JA008	10K 1/16W	1	
	R2756	D0GB103JA008	10K 1/16W	1	
	R2758	D0GB222JA008	2.2K 1/16W	1	
	R2759	D0GB222JA008	2.2K 1/16W	1	
	R2801	D0GB103JA008	10K 1/16W	1	
	R2802	D0GB100JA008	10 1/16W	1	
	R2803	D0GB103JA008	10K 1/16W	1	
	R2804	D0GB473JA008	47K 1/16W	1	
	R2805	D0GB473JA008	47K 1/16W	1	
	R2806	D0GB103JA008	10K 1/16W	1	
	R2807	D0GB103JA008	10K 1/16W	1	
	R2812	D0GB101JA008	100 1/16W	1	
	R2813	D0GB101JA008	100 1/16W	1	
	R2817	D0GB104JA008	100K 1/16W	1	
	R2818	D0GB104JA008	100K 1/16W	1	
	R2819	D0GB104JA008	100K 1/16W	1	
	R2820	D0GB100JA008	10 1/16W	1	
	R2821	D0GB100JA008	10 1/16W	1	
	R2823	D0GB221JA008	220 1/16W	1	
	R2824	D0GB221JA008	220 1/16W	1	
	R2825	D0GB101JA008	100 1/16W	1	
	R2828	D0GB103JA008	10K 1/16W	1	
	R2829	D0GB102JA008	1K 1/16W	1	
	R2830	D0GB102JA008	1K 1/16W	1	
	R2831	D0GB102JA008	1K 1/16W	1	
	R2834	D0GB102JA008	1K 1/16W	1	
	R2835	D0GB100JA008	10 1/16W	1	
	R2836	D0GB100JA008	10 1/16W	1	
	R2837	D0GB100JA008	10 1/16W	1	
	R2838	D0GB100JA008	10 1/16W	1	
	R2839	D0GB100JA008	10 1/16W	1	
	R2840	D0GBR00JA008	0 1/16W	1	
	R2841	D0GB100JA008	10 1/16W	1	
	R2842	D0GB100JA008	10 1/16W	1	
	R2843	D0GB473JA008	47K 1/16W	1	
	R2844	D0GB101JA008	100 1/16W	1	
	R2846	D0GB472JA008	4.7K 1/16W	1	
	R2847	D0GB223JA008	22K 1/16W	1	
	R2848	D0GB102JA008	1K 1/16W	1	
	R2849	D0GB102JA008	1K 1/16W	1	
	R2850	D0GB100JA008	10 1/16W	1	
	R2851	D0GB100JA008	10 1/16W	1	
	R2852	D0GB100JA008	10 1/16W	1	
	R2854	D0GB473JA008	47K 1/16W	1	
	R2858	D0GB100JA008	10 1/16W	1	
	R2859	D0GB100JA008	10 1/16W	1	
	R2860	D0GB100JA008	10 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2861	D0GB100JA008	10 1/16W	1	
	R2862	D0GB100JA008	10 1/16W	1	
	R2863	D0GB100JA008	10 1/16W	1	
	R2864	D0GB473JA008	47K 1/16W	1	
	R2865	D0GB473JA008	47K 1/16W	1	
	R2866	D0GB473JA008	47K 1/16W	1	
	R2869	D0GB473JA008	47K 1/16W	1	
	R2870	D0GB473JA008	47K 1/16W	1	
	R2871	D0GB473JA008	47K 1/16W	1	
	R2872	D0GB473JA008	47K 1/16W	1	
	R2873	D0GB473JA008	47K 1/16W	1	
	R2874	D0GB223JA008	22K 1/16W	1	
	R2875	D0GB103JA008	10K 1/16W	1	
	R2876	D0GB223JA008	22K 1/16W	1	
	R2877	D0GB223JA008	22K 1/16W	1	
	R2878	D0GB472JA008	4.7K 1/16W	1	
	R2879	D0GB473JA008	47K 1/16W	1	
	R2880	D0GB473JA008	47K 1/16W	1	
	R2881	D0GB221JA008	220 1/16W	1	
	R2882	D0GB106JA008	10M 1/16W	1	
	R2883	D0GB331JA008	330 1/16W	1	
	R2884	D0GB100JA008	10 1/16W	1	
	R2886	D0GB105JA008	1M 1/16W	1	
	R2887	D0GB102JA008	1K 1/16W	1	
	R2888	D0GB102JA008	1K 1/16W	1	
	R2889	D0GB102JA008	1K 1/16W	1	
	R2890	D0GBR00JA008	0 1/16W	1	
	R2891	D0GB473JA008	47K 1/16W	1	
	R2894	D0GB102JA008	1K 1/16W	1	
	R2895	D0GB100JA008	10 1/16W	1	
	R2902	D0GB102JA008	1K 1/16W	1	
	R2903	D0GB750JA008	75 1/16W	1	
	R2904	D0GB750JA008	75 1/16W	1	
	R2905	D0GB750JA008	75 1/16W	1	
	R2906	D0GB750JA008	75 1/16W	1	
	R2913	D0GB103JA008	10K 1/16W	1	
	R2934	D0GBR00JA008	0 1/16W	1	
	R2935	D0GBR00JA008	0 1/16W	1	
	R2936	D0GBR00JA008	0 1/16W	1	
	R2937	D0GBR00JA008	0 1/16W	1	
	R2938	D0GBR00JA008	0 1/16W	1	
	R2941	D0GBR00JA008	0 1/16W	1	
	R2942	D0GBR00JA008	0 1/16W	1	
	R2943	D0GB821JA008	820 1/16W	1	
	R2944	D0GD472JA017	4.7K 1/10W	1	
	R2945	D0GB222JA008	2.2K 1/16W	1	
	R2946	D0GB563JA008	56K 1/16W	1	
	R2947	D0AF270JA039	27 1/2W	1	
	R2948	D0GB100JA008	10 1/16W	1	
	R2949	D0GB473JA008	47K 1/16W	1	
	R2951	D0GB104JA008	100K 1/16W	1	
	R2952	D0GB104JA008	100K 1/16W	1	
	R2954	D0GB103JA008	10K 1/16W	1	
	R2955	D0GB562JA008	5.6K 1/16W	1	
	R2956	D0GB103JA008	10K 1/16W	1	
	R2976	D0GBR00JA008	0 1/16W	1	
	R2978	D0GB182JA008	1.8K 1/16W	1	
	R3000	D0GB332JA008	3.3K 1/16W	1	
	R3001	D0GB332JA008	3.3K 1/16W	1	
	R3002	D0GB562JA008	5.6K 1/16W	1	
	R3003	D0GB562JA008	5.6K 1/16W	1	
	R3004	D0GB562JA008	5.6K 1/16W	1	
	R4001	D0GB152JA008	1.5K 1/16W	1	
	R4002	D0GB272JA008	2.7K 1/16W	1	
	R4003	D0GB102JA008	1K 1/16W	1	
	R4008	D0GB224JA008	220K 1/16W	1	
	R4009	D0GB102JA008	1K 1/16W	1	
	R4010	D0GB912JA041	9.1K 1/10W	1	
	R4011	D0GB102JA008	1K 1/16W	1	
	R4012	D0GB100JA008	10 1/16W	1	
	R4013	D0GB103JA008	10K 1/16W	1	
	R4014	D0GB223JA008	22K 1/16W	1	
	R4015	D0GB183JA008	18K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R4016	D0GB103JA008	10K 1/16W	1	
	R4017	ERG2SJ220E	22 2W	1	
	R4018	ERG2SJ220E	22 2W	1	
	R4019	D0GB102JA008	1K 1/16W	1	
	R4020	D0GB272JA008	2.7K 1/16W	1	
	R4021	D0GB473JA008	47K 1/16W	1	
	R4022	D0GB470JA008	47 1/16W	1	
	R4023	D0GB562JA008	5.6K 1/16W	1	
	R4024	D0GB472JA008	4.7K 1/16W	1	
	R4026	D0GB103JA008	10K 1/16W	1	
	R4027	D0GB681JA008	680 1/16W	1	
	R4028	D0GB473JA008	47K 1/16W	1	
	R4029	D0GB390JA008	39 1/16W	1	
	R4030	D0GB331JA008	330 1/16W	1	
	R4033	D0GB561JA008	560 1/16W	1	
	R4034	D0GB272JA008	2.7K 1/16W	1	
	R4035	D0GB101JA008	100 1/16W	1	
	R5000	D0GB562JA008	5.6K 1/16W	1	
	R5001	D0GB562JA008	5.6K 1/16W	1	
	R5002	D0GB562JA008	5.6K 1/16W	1	
	R5003	D0GB562JA008	5.6K 1/16W	1	
	R5004	D0GF100JA014	10 1/8W	1	
	R5005	D0GF100JA014	10 1/8W	1	
	R5006	D0GZ220JA012	22 1W	1	
	R5007	D0GZ220JA012	22 1W	1	
	R5008	D0GB101JA008	100 1/16W	1	
	R5010	D0GF100JA014	10 1/8W	1	
	R5011	D0GF100JA014	10 1/8W	1	
	R5019	D0GB683JA008	68K 1/16W	1	
	R5020	D0GB124JA008	120K 1/16W	1	
	R5021	D0GB181JA008	180 1/16W	1	
	R5022	D0GB122JA008	1.2K 1/16W	1	
	R5023	D0GB122JA008	1.2K 1/16W	1	
	R5030	D0GB562JA008	5.6K 1/16W	1	
	R5031	D0GB562JA008	5.6K 1/16W	1	
	R5032	D0GB562JA008	5.6K 1/16W	1	
	R5033	D0GB562JA008	5.6K 1/16W	1	
	R5034	D0GB562JA008	5.6K 1/16W	1	
	R5035	D0GB562JA008	5.6K 1/16W	1	
	R5036	D0GB562JA008	5.6K 1/16W	1	
	R5037	D0GB562JA008	5.6K 1/16W	1	
	R5102	D0GB122JA008	1.2K 1/16W	1	
	R5103	D0GB102JA008	1K 1/16W	1	
	R5103	D0GB562JA008	5.6K 1/16W	1	
	R5104	D0GB102JA008	1K 1/16W	1	
	R5104	D0GB562JA008	5.6K 1/16W	1	
	R5110	D0GB223JA008	22K 1/16W	1	
	R5111	D0GB124JA008	120K 1/16W	1	
	R5113	D0GB683JA008	68K 1/16W	1	
	R5114	D0GB122JA008	1.2K 1/16W	1	
	R5115	D0GB122JA008	1.2K 1/16W	1	
	R5118	D0GB562JA008	5.6K 1/16W	1	
	R5119	D0GB562JA008	5.6K 1/16W	1	
	R5200	D0GF100JA014	10 1/8W	1	
	R5201	D0GF100JA014	10 1/8W	1	
	R5204	D0GB101JA008	100 1/16W	1	
	R5205	D0GB562JA008	5.6K 1/16W	1	
	R5206	D0GB562JA008	5.6K 1/16W	1	
	R5206	D0GBR00JA008	0 1/16W	1	
	R5207	D0GB562JA008	5.6K 1/16W	1	
	R5208	D0GB562JA008	5.6K 1/16W	1	
	R5209	D0GB393JA008	39K 1/16W	1	
	R5209	D0GZ220JA012	22 1W	1	
	R5210	D0GB104JA008	100K 1/16W	1	
	R5210	D0GF100JA014	10 1/8W	1	
	R5211	D0GB471JA008	470 1/16W	1	
	R5211	D0GF100JA014	10 1/8W	1	
	R5217	D0GZ220JA012	22 1W	1	
	R5218	D0GB683JA008	68K 1/16W	1	
	R5228	D0GB124JA008	120K 1/16W	1	
	R5300	D0GZ220JA012	22 1W	1	
	R5302	D0GF100JA014	10 1/8W	1	
	R5304	D0GB101JA008	100 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R5305	D0GF100JA014	10 1/8W	1	
	R5306	D0GB562JA008	5.6K 1/16W	1	
	R5306	D0GBR00JA008	0 1/16W	1	
	R5307	D0GB562JA008	5.6K 1/16W	1	
	R5308	D0GB562JA008	5.6K 1/16W	1	
	R5308	D0GBR00JA008	0 1/16W	1	
	R5309	D0GB393JA008	39K 1/16W	1	
	R5309	D0GB562JA008	5.6K 1/16W	1	
	R5310	D0GB104JA008	100K 1/16W	1	
	R5310	D0GF100JA014	10 1/8W	1	
	R5311	D0GB471JA008	470 1/16W	1	
	R5311	D0GF100JA014	10 1/8W	1	
	R5317	D0GB122JA008	1.2K 1/16W	1	
	R5318	D0GB124JA008	120K 1/16W	1	
	R5319	D0GZ220JA012	22 1W	1	
	R5327	D0GB122JA008	1.2K 1/16W	1	
	R5328	D0GB683JA008	68K 1/16W	1	
	R5400	D0GZ220JA012	22 1W	1	
	R5402	D0GF100JA014	10 1/8W	1	
	R5404	D0GB101JA008	100 1/16W	1	
	R5405	D0GF100JA014	10 1/8W	1	
	R5410	D0GF100JA014	10 1/8W	1	
	R5411	D0GF100JA014	10 1/8W	1	
	R5419	D0GZ220JA012	22 1W	1	
	R5504	D0GB220JA008	22 1/16W	1	
	R5505	D0GB101JA008	100 1/16W	1	
	R5506	D0GB105JA008	1M 1/16W	1	
	R5507	D0GB105JA008	1M 1/16W	1	
	R5508	D0GB105JA008	1M 1/16W	1	
	R5510	ERG2SJ471E	470 2W	1	
	R5512	D0GBR00JA008	0 1/16W	1	
	R5513	D0GB101JA008	100 1/16W	1	
	R5515	D0GBR00JA008	0 1/16W	1	
	R5602	D0GB103JA008	10K 1/16W	1	
	R5603	D0GB103JA008	10K 1/16W	1	
	R5604	D0GB122JA008	1.2K 1/16W	1	
	R5606	D0GB103JA008	10K 1/16W	1	
	R5607	D0GB122JA008	1.2K 1/16W	1	
	R5608	D0GB103JA008	10K 1/16W	1	
	R5609	D0GB103JA008	10K 1/16W	1	
	R5610	D0GB122JA008	1.2K 1/16W	1	
	R5611	D0GB122JA008	1.2K 1/16W	1	
	R5671	D0GBR00JA008	0 1/16W	1	
	R5701	ERDS1TJ475B	4.7M 1W	1	
	R5702	ERJ1TYJ104U	100K 1W	1	
	R5703	ERJ1TYJ104U	100K 1W	1	
	R5704	ERJ8GEYJ224V	220K 1/4W	1	
	R5705	ERJ8GEYJ224V	220K 1/4W	1	
	R5720	D0GD220JA017	22 1/10W	1	
	R5721	D0GD103JA017	10K 1/10W	1	
	R5722	D0GD102JA017	1K 1/10W	1	
	R5723	D0GB102JA008	1K 1/16W	1	
	R5724	D0GD121JA017	120 1/10W	1	
	R5725	D0GBR00JA008	0 1/16W	1	
	R5726	ERX2LJ82MP	82m 2W	1	
	R5728	D0GB104JA008	100K 1/16W	1	
	R5729	D0GD103JA017	10K 1/10W	1	
	R5730	D0GB102JA008	1K 1/16W	1	
	R5731	D0GBR00JA008	0 1/16W	1	
	R5732	D0GB101JA008	100 1/16W	1	
	R5733	D0GB473JA008	47K 1/16W	1	
	R5750	D0GBR00JA008	0 1/16W	1	
	R5786	ERJ1TYJ204U	200K 1W	1	
	R5787	D0GB753JA008	75K 1/16W	1	
	R5795	ERJ6GEYJ433V	43K 1/8W	1	
	R5796	D0AF222JA039	2.2K 1/2W	1	
	R5797	D0GD472JA017	4.7K 1/10W	1	
	R5798	D0GD100JA017	10 1/10W	1	
	R5800	ERJ6RBD822V	8.2K 1/10W	1	
	R5801	D0GD103JA017	10K 1/10W	1	
	R5802	ERJ3RBD272V	2.7K 1/16W	1	
	R5803	D0GDR00JA017	0 1/10W	1	
	R5804	D1BD4702A077	47K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R5805	ERJ3RBD222V	2.2K 1/16W	1	
	R5806	D0GB153JA008	15K 1/16W	1	
	R5807	ERJ6GEYJ331V	330 1/8W	1	
	R5808	D0GD222JA017	2.2K 1/10W	1	
	R5809	ERJ6GEYJ331V	330 1/8W	1	
	R5810	D0GB331JA008	330 1/16W	1	
	R5811	ERJ8GEYJ152V	1.5K 1/4W	1	
	R5812	D0HB822ZA002	8.2K 1/16W	1	
	R5813	ERJ3RBD243V	24K 1/16W	1	
	R5814	D0GB822JA008	8.2K 1/16W	1	
	R5815	D0GB272JA008	2.7K 1/16W	1	
	R5816	ERJ8GEYJ152V	1.5K 1/4W	1	
	R5817	D0GB331JA008	330 1/16W	1	
	R5820	ERG2SJ910E	91 2W	1	
	R5821	ERG2SJ910E	91 2W	1	
	R5822	ERG2SJ910E	91 2W	1	
	R5823	ERG2SJ910E	91 2W	1	
	R5824	ERG2SJ910E	91 2W	1	
	R5825	D0GB102JA008	1K 1/16W	1	
	R5832	D0GZ222JA012	2.2K 1W	1	
	R5834	D0GZ222JA012	2.2K 1W	1	
	R5840	D0GB823JA008	82K 1/16W	1	
	R5841	D0GB124JA008	120K 1/16W	1	
	R5860	ERJ3GEYF103V	10K 1/10W	1	
	R5861	ERJ3GEYF302V	3K 1/10W	1	
	R5862	D0GD103JA017	10K 1/10W	1	
	R5863	D0GD103JA017	10K 1/10W	1	
	R5864	ERJ6GEYF103V	10K 1/8W	1	
	R5890	D0GB222JA008	2.2K 1/16W	1	
	R5891	ERJ3RBD333V	33K 1/16W	1	
	R5892	ERJ3RBD472V	4.7K 1/16W	1	
	R5893	ERJ3RBD393V	39K 1/16W	1	
	R5894	D0GB102JA008	1K 1/16W	1	
	R5895	D0GB101JA008	100 1/16W	1	
	R5896	D0GB104JA008	100K 1/16W	1	
	R5897	D0GB101JA008	100 1/16W	1	
	R6004	D0GB681JA008	680 1/16W	1	
	R6005	D0GB681JA008	680 1/16W	1	
	R6006	D0GB561JA008	560 1/16W	1	
	R6007	D0GB471JA008	470 1/16W	1	
	R6008	D0GB223JA008	22K 1/16W	1	
	R6009	D0GB101JA008	100 1/16W	1	
	R6011	D0GB473JA008	47K 1/16W	1	
	R6014	D0GB105JA008	1M 1/16W	1	
	R6100	D0GB103JA008	10K 1/16W	1	
	R6101	D0GB102JA008	1K 1/16W	1	
	R6102	D0GBR00JA008	0 1/16W	1	
	R6103	D0GB102JA008	1K 1/16W	1	
	R6104	D0GB122JA008	1.2K 1/16W	1	
	R6106	D0GB182JA008	1.8K 1/16W	1	
	R6107	D0GB222JA008	2.2K 1/16W	1	
	R6108	D0GB272JA008	2.7K 1/16W	1	
	R6109	D0GB562JA008	5.6K 1/16W	1	
	R6200	D0GB103JA008	10K 1/16W	1	
	R6201	D0GB102JA008	1K 1/16W	1	
	R6202	D0GB102JA008	1K 1/16W	1	
	R6203	D0GB122JA008	1.2K 1/16W	1	
	R6204	D0GB182JA008	1.8K 1/16W	1	
	R6205	D0GB222JA008	2.2K 1/16W	1	
	R6206	D0GB272JA008	2.7K 1/16W	1	
	R6207	D0GB472JA008	4.7K 1/16W	1	
	R6208	D0GB682JA008	6.8K 1/16W	1	
	R6300	D0GB103JA008	10K 1/16W	1	
	R6301	D0GB102JA008	1K 1/16W	1	
	R6302	D0GB102JA008	1K 1/16W	1	
	R6303	D0GB122JA008	1.2K 1/16W	1	
	R6304	D0GB182JA008	1.8K 1/16W	1	
	R6305	D0GB222JA008	2.2K 1/16W	1	
	R6306	D0GBR00JA008	0 1/16W	1	
	R6307	D0GB272JA008	2.7K 1/16W	1	
	R6308	D0GB472JA008	4.7K 1/16W	1	
	R6458	D0GB102JA008	1K 1/16W	1	
	R6501	D0GB123JA008	12K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R6502	D0GB223JA008	22K 1/16W	1	
	R6503	D0GB103JA008	10K 1/16W	1	
	R6511	D0GBR00JA008	0 1/16W	1	
	R6512	D0GB561JA008	560 1/16W	1	
	R6618	D0GB221JA008	220 1/16W	1	
	R6619	D0GB221JA008	220 1/16W	1	
	R6620	D0GB471JA008	470 1/16W	1	
	R6622	D0GB823JA008	82K 1/16W	1	
	R6631	D0GB103JA008	10K 1/16W	1	
	R6632	D0GB103JA008	10K 1/16W	1	
	R6641	D0GB392JA008	3.9K 1/16W	1	
	R6642	D0GB100JA008	10 1/16W	1	
	R6671	D0GB223JA008	22K 1/16W	1	
	R6672	D0GB100JA008	10 1/16W	1	
	R6674	D0GB331JA008	330 1/16W	1	
	R6811	D0GBR00JA008	0 1/16W	1	
	R6812	D0GBR00JA008	0 1/16W	1	
	R6901	D0GBR00JA008	0 1/16W	1	
	R6907	D0GB103JA008	10K 1/16W	1	
	R6917	D0GB472JA008	4.7K 1/16W	1	
	R6918	D0GB472JA008	4.7K 1/16W	1	
	R6919	D0GB222JA008	2.2K 1/16W	1	
	R6920	D0GB472JA008	4.7K 1/16W	1	
	R6921	D0GB390JA008	39 1/16W	1	
	R6922	D0GB390JA008	39 1/16W	1	
	R6923	D0GB123JA008	12K 1/16W	1	
	R6924	D0GB153JA008	15K 1/16W	1	
	R6925	D0GB153JA008	15K 1/16W	1	
	R6926	D0GB153JA008	15K 1/16W	1	
	R6927	D0GB472JA008	4.7K 1/16W	1	
	R6940	D0GB103JA008	10K 1/16W	1	
	R6941	D0GB123JA008	12K 1/16W	1	
	R6942	D0GB103JA008	10K 1/16W	1	
	R6943	D0GB153JA008	15K 1/16W	1	
	R6944	D0GBR00JA008	0 1/16W	1	
	R8001	D0GA103JA023	10K 1/16W	1	
	R8003	D0GA103JA023	10K 1/16W	1	
	R8011	D0GA220JA023	22 1/16W	1	
	R8012	D0GA220JA023	22 1/16W	1	
	R8013	D0GA220JA023	22 1/16W	1	
	R8014	ERJ2GE0R00X	0 1/16W	1	
	R8035	D0GB102JA008	1K 1/16W	1	
	R8036	D0GB563JA008	56K 1/16W	1	
	R8037	D0GB563JA008	56K 1/16W	1	
	R8038	D0GB102JA008	1K 1/16W	1	
	R8211	D0GA103JA023	10K 1/16W	1	
	R8221	D0GA822JA023	8.2K 1/16W	1	
	R8225	D0GA822JA023	8.2K 1/16W	1	
	R8230	D0GA222JA023	2.2K 1/16W	1	
	R8231	D0GA752JA023	7.5K 1/16W	1	
	R8232	D0GA752JA023	7.5K 1/16W	1	
	R8251	D0GD6R8JA017	6.8 1/10W	1	
	R8252	D0GA103JA023	10K 1/16W	1	
	R8261	D0GA823JA023	82K 1/16W	1	
	R8262	D0GA153JA023	15K 1/16W	1	
	R8263	D0GA823JA023	82K 1/16W	1	
	R8264	D0GA153JA023	15K 1/16W	1	
	R8311	ERJ2RHD242X	2.4K 1/32W	1	
	R8312	ERJ2RHD102X	1K 1/32W	1	
	R8313	ERJ2RHD153X	15K 1/32W	1	
	R8314	ERJ2RHD153X	15K 1/32W	1	
	R8315	ERJ2RKD240X	24 1/32W	1	
	R8316	ERJ2RKD240X	24 1/32W	1	
	R8317	D0GA153JA023	15K 1/16W	1	
	R8318	D0GA153JA023	15K 1/16W	1	
	R8321	ERJ3RBD201V	200 1/16W	1	
	R8323	D0GA330JA023	33 1/16W	1	
	R8324	D0GA102JA023	1K 1/16W	1	
	R8325	ERJ3RBD201V	200 1/16W	1	
	R8327	D0GA330JA023	33 1/16W	1	
	R8328	D0GA102JA023	1K 1/16W	1	
	R8331	ERJ3RBD201V	200 1/16W	1	
	R8333	D0GA330JA023	33 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8334	D0GA102JA023	1K 1/16W	1	
	R8335	ERJ3RBD201V	200 1/16W	1	
	R8336	D0GA330JA023	33 1/16W	1	
	R8337	D0GA102JA023	1K 1/16W	1	
	R8341	ERJ3RBD201V	200 1/16W	1	
	R8342	D0GA330JA023	33 1/16W	1	
	R8343	D0GA102JA023	1K 1/16W	1	
	R8401	D0GA101JA023	100 1/16W	1	
	R8402	D0GA101JA023	100 1/16W	1	
	R8403	D0GA101JA023	100 1/16W	1	
	R8404	D0GA101JA023	100 1/16W	1	
	R8406	ERJ2GEJ100X	10 1/16W	1	
	R8420	D0GA222JA023	2.2K 1/16W	1	
	R8421	ERJ2GEJ100X	10 1/16W	1	
	R8422	ERJ2GE0R00X	0 1/16W	1	
	R8423	ERJ2GE0R00X	0 1/16W	1	
	R8426	ERJ2GE0R00X	0 1/16W	1	
	R8429	ERJ2GE0R00X	0 1/16W	1	
	R8531	D0GA152JA023	1.5K 1/16W	1	
	R8532	D0GA222JA023	2.2K 1/16W	1	
	R8533	ERJ2GE0R00X	0 1/16W	1	
	R8534	D0GA103JA023	10K 1/16W	1	
	R8535	D0GA104JA023	100K 1/16W	1	
	R8536	D0GA103JA023	10K 1/16W	1	
	R8537	ERJ2GE0R00X	0 1/16W	1	
	R8538	ERJ2GE0R00X	0 1/16W	1	
	R8539	ERJ2GE0R00X	0 1/16W	1	
	R8540	D0GBR00JA008	0 1/16W	1	
	R8541	D0GA153JA023	15K 1/16W	1	
	R8551	ERJ2GE0R00X	0 1/16W	1	
	R8552	D0GA102JA023	1K 1/16W	1	
	R8553	D0GA102JA023	1K 1/16W	1	
	R8554	ERJ2GEJ680X	68 1/16W	1	
	R8555	D0GA2R2JA023	2.2 1/16W	1	
	R8556	D0GB560JA008	56 1/16W	1	
	R8557	D0GB510JA008	51 1/16W	1	
	R8558	D0GA473JA023	47K 1/16W	1	
	R8559	D0GA153JA023	15K 1/16W	1	
	R8561	ERJ2GE0R00X	0 1/16W	1	
	R8562	D0GA102JA023	1K 1/16W	1	
	R8563	D0GA102JA023	1K 1/16W	1	
	R8564	D0GA220JA023	22 1/16W	1	
	R8565	D0GA2R2JA023	2.2 1/16W	1	
	R8566	D0GB560JA008	56 1/16W	1	
	R8567	D0GB510JA008	51 1/16W	1	
	R8568	D0GA473JA023	47K 1/16W	1	
	R8601	D0GA105JA023	1M 1/16W	1	
	R8611	D0GA101JA023	100 1/16W	1	
	R8613	D0GA101JA023	100 1/16W	1	
	R8621	D0GA105JA023	1M 1/16W	1	
	R8622	ERJ2RHD102X	1K 1/32W	1	
	R9007	D0GA103JA023	10K 1/16W	1	
	R9008	D0GA105JA023	1M 1/16W	1	
	R9009	D0GA102JA023	1K 1/16W	1	
	R9010	ERJ2GEJ100X	10 1/16W	1	
	R9023	D0GA103JA023	10K 1/16W	1	
	R9036	D0GA103JA023	10K 1/16W	1	
	R9037	D0GA103JA023	10K 1/16W	1	
	R9040	D0GA103JA023	10K 1/16W	1	
	R9041	D0GA103JA023	10K 1/16W	1	
	R9042	D0GA103JA023	10K 1/16W	1	
	R9043	D0GA103JA023	10K 1/16W	1	
	R9044	D0GA103JA023	10K 1/16W	1	
	R9045	D0GA103JA023	10K 1/16W	1	
	R9046	D0GA103JA023	10K 1/16W	1	
	R9047	D0GA103JA023	10K 1/16W	1	
	R9048	D0GA103JA023	10K 1/16W	1	
	R9049	D0GA103JA023	10K 1/16W	1	
	R9055	D0GA472JA023	4.7K 1/16W	1	
	R9080	D0GA103JA023	10K 1/16W	1	
	R9082	D0GA103JA023	10K 1/16W	1	
	R9083	D0GA470JA023	47 1/16W	1	
	R9084	D0GA470JA023	47 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R9085	D0GA470JA023	47 1/16W	1	
	R9086	D0GA470JA023	47 1/16W	1	
	R9087	D0GA470JA023	47 1/16W	1	
	R9088	D0GA470JA023	47 1/16W	1	
	R9099	ERJ2GE0R00X	0 1/16W	1	
	RX8001	D1H410320002	RESISTOR NETWORK	1	
	RX8011	D1H88204A043	RESISTOR NETWORK	1	
	RX8012	D1H88204A043	RESISTOR NETWORK	1	
	RX8013	D1H88204A043	RESISTOR NETWORK	1	
	RX8014	D1H88204A043	RESISTOR NETWORK	1	
	RX8015	D1H88204A043	RESISTOR NETWORK	1	
	RX8016	D1H88204A043	RESISTOR NETWORK	1	
	RX8017	D1H88204A043	RESISTOR NETWORK	1	
	RX8018	D1H422020001	RESISTOR NETWORK	1	
	RX8019	D1H422020001	RESISTOR NETWORK	1	
	RX8020	D1H422020001	RESISTOR NETWORK	1	
	RX8031	D1H447220001	RESISTOR NETWORK	1	
	RX8032	D1H447220001	RESISTOR NETWORK	1	
	RX8401	D1H410120001	RESISTOR NETWORK	1	
	RX8402	D1H410120001	RESISTOR NETWORK	1	
	RX8531	D1H456020001	RESISTOR NETWORK	1	
	RX8532	D1H85604A043	RESISTOR NETWORK	1	
	RX8533	D1H456020001	RESISTOR NETWORK	1	
	RX8534	D1H456020001	RESISTOR NETWORK	1	
	RX8611	D1H447220001	RESISTOR NETWORK	1	
	RX8691	D1H410320002	RESISTOR NETWORK	1	
	RX9014	D1H85604A043	RESISTOR NETWORK	1	
	RX9015	D1H85604A043	RESISTOR NETWORK	1	
	RX9016	D1H85604A043	RESISTOR NETWORK	1	
	RX9017	D1H85604A043	RESISTOR NETWORK	1	
	RX9018	D1H447220001	RESISTOR NETWORK	1	
	RX9020	D1H447220001	RESISTOR NETWORK	1	
			CAPACITORS		
	C1100	F2A0J101A208	100uF 6.3V	1	
	C1101	F2A1H1R0A145	1.0uF 50V	1	
	C1102	F1H1H102A219	1000pF 50V	1	
	C1103	F2A1C101A147	100uF 16V	1	
	C1104	F1H1E273A002	0.027uF 25V	1	
	C1105	F1H1H471A219	470pF 50V	1	
	C1106	F2A1H2R2A145	2.2uF 50V	1	
	C1107	F1H1H152A219	1500pF 50V	1	
	C1108	F2A1C100A147	10uF 16V	1	
	C1109	F2A1H3R3A145	3.3uF 50V	1	
	C1110	F1H1C104A042	0.1uF 16V	1	
	C1110	F1H1H682A219	6800pF 50V	1	
	C1121	F1H1H102A219	1000pF 50V	1	
	C1122	F1H1E103A029	0.01uF 25V	1	
	C1123	ECJ1VB1H271K	270pF 50V	1	
	C1124	F1H1H102A219	1000pF 50V	1	
	C1201	F2A1H1R0A145	1.0uF 50V	1	
	C1202	F1H1H102A219	1000pF 50V	1	
	C1203	F2A1C101A147	100uF 16V	1	
	C1204	F1H1E273A002	0.027uF 25V	1	
	C1205	F1H1H471A219	470pF 50V	1	
	C1206	F2A1H2R2A145	2.2uF 50V	1	
	C1207	F1H1H152A219	1500pF 50V	1	
	C1208	F2A1C100A147	10uF 16V	1	
	C1209	F2A1H3R3A145	3.3uF 50V	1	
	C1210	F1H1H682A219	6800pF 50V	1	
	C1221	F1H1H102A219	1000pF 50V	1	
	C1222	F1H1E103A029	0.01uF 25V	1	
	C1223	ECJ1VB1H271K	270pF 50V	1	
	C1224	F1H1H102A219	1000pF 50V	1	
	C1301	F2A1HR10A015	0.10uF 50V	1	
	C1302	F1H1C333A071	0.033uF 16V	1	
	C1303	F1H1C333A071	0.033uF 16V	1	
	C1304	F2A1H4R7A234	4.7uF 50V	1	
	C1305	F2A1C330A234	33uF 16V	1	
	C1307	ECA1AAK221XQ	220uF 10V	1	
	C1308	F2A1C220A234	22uF 16V	1	
	C1311	F2A1C470A234	47uF 16V	1	
	C1312	F1H1H332A013	3300pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C1314	F1H1H222A013	2200pF 50V	1	
	C1315	F1H1H222A013	2200pF 50V	1	
	C1316	F1H1H102A219	1000pF 50V	1	
	C1317	F1H1H102A219	1000pF 50V	1	
	C1318	ECQV1H473JL3	0.047uF 50V	1	
	C1319	F2A1C101A147	100uF 16V	1	
	C1320	F2A1H100A214	10uF 50V	1	
	C1321	F0A2A472A010	4700pF 100V	1	
	C1323	ECEA1HKN010B	1uF 50V	1	
	C1324	F2A1C470A234	47uF 16V	1	
	C1326	F2A1C100A147	10uF 16V	1	
	C1326	F2A1H100A182	10uF 50V	1	
	C1371	F1H1E103A029	0.01uF 25V	1	
	C2006	F2A1C4710045	470uF 16V	1	
	C2008	F1H1C104A042	0.1uF 16V	1	
	C2009	F1H1H103A219	0.01uF 50V	1	
	C2010	F1H1H103A219	0.01uF 50V	1	
	C2011	F2A1H3R3A213	3.3uF 50V	1	
	C2012	F2A1H3R3A213	3.3uF 50V	1	
	C2014	F2A1H3R3A213	3.3uF 50V	1	
	C2015	F1H1H221A219	220pF 50V	1	
	C2016	F1H1H221A219	220pF 50V	1	
	C2017	F1H1H103A219	0.01uF 50V	1	
	C2018	F2A1A330A159	33uF 10V	1	
	C2020	F1H1H103A219	0.01uF 50V	1	
	C2021	F2A1C470A180	47uF 16V	1	
	C2022	EEUFM1A681B	680uF 10V	1	
	C2024	F1H1H221A219	220pF 50V	1	
	C2025	F1H1H221A219	220pF 50V	1	
	C2028	F2A1A330A159	33uF 10V	1	
	C2029	F2A1A330A159	33uF 10V	1	
	C2032	F1H1H103A219	0.01uF 50V	1	
	C2034	F1H0J1050013	1uF 6.3V	1	
	C2035	F1H0J1050013	1uF 6.3V	1	
	C2051	F2A1H3R3A213	3.3uF 50V	1	
	C2101	F1H1H332A013	3300pF 50V	1	
	C2102	F1H1C473A088	0.047uF 16V	1	
	C2103	F1H0J1050013	1uF 6.3V	1	
	C2104	F1H1A474A025	0.47uF 10V	1	
	C2105	D0GB682JA008	6.8K 1/16W	1	
	C2106	F1H1H101A720	100pF 50V	1	
	C2108	F1H1H102A219	1000pF 50V	1	
	C2109	F1H1H153A219	0.015uF 50V	1	
	C2113	F1H1H471A219	470pF 50V	1	
	C2114	F1H1H103A219	0.01uF 50V	1	
	C2115	F1H1H153A219	0.015uF 50V	1	
	C2116	F1H1H562A219	5600pF 50V	1	
	C2117	F1H1A154A037	0.15uF 10V	1	
	C2118	F1H1C683A087	0.068uF 16V	1	
	C2119	F1H0J1050013	1uF 6.3V	1	
	C2120	F1H0J1050013	1uF 6.3V	1	
	C2121	F1H1A184A012	0.18uF 10V	1	
	C2122	F1H0J1050013	1uF 6.3V	1	
	C2123	F1H0J1050013	1uF 6.3V	1	
	C2124	F1H0J1050013	1uF 6.3V	1	
	C2125	F1H1H102A219	1000pF 50V	1	
	C2126	ECJ1VB1H681K	680pF 50V	1	
	C2127	F1H1H101A720	100pF 50V	1	
	C2128	F1H0J1050013	1uF 6.3V	1	
	C2198	D0GBR00JA008	0 1/16W	1	
	C2201	F1H1H332A013	3300pF 50V	1	
	C2202	F1H1C473A088	0.047uF 16V	1	
	C2203	F1H0J1050013	1uF 6.3V	1	
	C2204	F1H1A474A025	0.47uF 10V	1	
	C2206	F1H1H101A720	100pF 50V	1	
	C2208	F1H1H102A219	1000pF 50V	1	
	C2209	F1H1H153A219	0.015uF 50V	1	
	C2213	F1H1H471A219	470pF 50V	1	
	C2214	F1H1H103A219	0.01uF 50V	1	
	C2215	F1H1H153A219	0.015uF 50V	1	
	C2216	F1H1H562A219	5600pF 50V	1	
	C2217	F1H1A154A037	0.15uF 10V	1	
	C2218	F1H1C683A087	0.068uF 16V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2219	F1H0J1050013	1uF 6.3V	1	
	C2220	F1H0J1050013	1uF 6.3V	1	
	C2221	F1H1A184A012	0.18uF 10V	1	
	C2222	F1H0J1050013	1uF 6.3V	1	
	C2223	F1H0J1050013	1uF 6.3V	1	
	C2224	F1H0J1050013	1uF 6.3V	1	
	C2225	F1H1H102A219	1000pF 50V	1	
	C2226	ECJ1VB1H681K	680pF 50V	1	
	C2227	F1H1H101A720	100pF 50V	1	
	C2228	F1H0J1050013	1uF 6.3V	1	
	C2301	F1H0J1050013	1uF 6.3V	1	
	C2302	F1H1C683A087	0.068uF 16V	1	
	C2303	F1H1C104A042	0.1uF 16V	1	
	C2304	F1J0J106A020	10uF 6.3V	1	
	C2305	F1H1H332A013	3300pF 50V	1	
	C2306	F1H1A154A001	0.15uF 10V	1	
	C2307	F1J0J106A020	10uF 6.3V	1	
	C2308	F1H1H223A219	0.022uF 50V	1	
	C2309	ECJ1VB1C823K	0.082uF 16V	1	
	C2310	F1H1H223A219	0.022uF 50V	1	
	C2311	F1H0J1050013	1uF 6.3V	1	
	C2312	F1H0J1050013	1uF 6.3V	1	
	C2315	F1H1H101A720	100pF 50V	1	
	C2320	F1H1H102A219	1000pF 50V	1	
	C2321	F1H1H102A219	1000pF 50V	1	
	C2331	F1H0J1050013	1uF 6.3V	1	
	C2333	F2A1H100A182	10uF 50V	1	
	C2334	F1H1A184A012	0.18uF 10V	1	
	C2343	F2A1H3R3A213	3.3uF 50V	1	
	C2355	D0GBR00JA008	0 1/16W	1	
	C2372	F2A1H100A182	10uF 50V	1	
	C2373	F2A1H3R3A213	3.3uF 50V	1	
	C2374	F2A1H3R3A213	3.3uF 50V	1	
	C2375	F1H0J1050013	1uF 6.3V	1	
	C2376	F2A1H3R3A213	3.3uF 50V	1	
	C2387	F2A1C100A180	10uF 16V	1	
	C2388	F2A1C100A180	10uF 16V	1	
	C2401	F1H0J1050013	1uF 6.3V	1	
	C2402	F1H1C683A087	0.068uF 16V	1	
	C2403	F1H1C104A042	0.1uF 16V	1	
	C2404	F1J0J106A020	10uF 6.3V	1	
	C2405	F1H1H332A013	3300pF 50V	1	
	C2406	F1H1A154A001	0.15uF 10V	1	
	C2407	F1J0J106A020	10uF 6.3V	1	
	C2408	F1H1H223A219	0.022uF 50V	1	
	C2415	F1H1H101A720	100pF 50V	1	
	C2501	F2A1H3R3A213	3.3uF 50V	1	
	C2502	F1H1C473A088	0.047uF 16V	1	
	C2503	F1H1C333A071	0.033uF 16V	1	
	C2504	ECJ1VB1H681K	680pF 50V	1	
	C2600	F2A1H3R3A213	3.3uF 50V	1	
	C2601	F2A1H220A182	22uF 50V	1	
	C2602	F2A1C100A180	10uF 16V	1	
	C2603	F1H1H223A219	0.022uF 50V	1	
	C2604	F2A1C100A180	10uF 16V	1	
	C2605	F1H1H222A219	2200pF 50V	1	
	C2609	F1H1A474A025	0.47uF 10V	1	
	C2610	F1H0J1050013	1uF 6.3V	1	
	C2611	ECJ1VB1C823K	0.082uF 16V	1	
	C2612	F1H1H562A219	5600pF 50V	1	
	C2616	F1H1H103A219	0.01uF 50V	1	
	C2617	F1H1C473A088	0.047uF 16V	1	
	C2620	F1H1C104A042	0.1uF 16V	1	
	C2624	F2A1H3R3A213	3.3uF 50V	1	
	C2625	F1H1H223A219	0.022uF 50V	1	
	C2626	F1H0J1050013	1uF 6.3V	1	
	C2627	F1H1H101A720	100pF 50V	1	
	C2628	F1H0J1050013	1uF 6.3V	1	
	C2629	F2A1H100A182	10uF 50V	1	
	C2630	F1H1H221A219	220pF 50V	1	
	C2631	F2A1H3R3A213	3.3uF 50V	1	
	C2632	F1H1A474A025	0.47uF 10V	1	
	C2633	F1H1H103A219	0.01uF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2634	F1H1H680A230	68pF 50V	1	
	C2635	F1H1H103A219	0.01uF 50V	1	
	C2636	F1H1H103A219	0.01uF 50V	1	
	C2637	F2A1H3R3A213	3.3uF 50V	1	
	C2661	F2A1C100A180	10uF 16V	1	
	C2729	F1H1C104A042	0.1uF 16V	1	
	C2801	F1H0J1050013	1uF 6.3V	1	
	C2802	F1H1H332A013	3300pF 50V	1	
	C2803	F1H1H332A013	3300pF 50V	1	
	C2808	F1H1H103A219	0.01uF 50V	1	
	C2809	ECQV1H474JL3	0.47uF 50V	1	
	C2812	F1H1H103A219	0.01uF 50V	1	
	C2813	F1H1H101A720	100pF 50V	1	
	C2814	F1H1H101A720	100pF 50V	1	
	C2815	F1H1H101A720	100pF 50V	1	
	C2816	F1H1H101A720	100pF 50V	1	
	C2817	F1H1H101A720	100pF 50V	1	
	C2818	F1H1H101A720	100pF 50V	1	
	C2819	F1H1H101A720	100pF 50V	1	
	C2820	F1H1H101A720	100pF 50V	1	
	C2821	F1H1H101A720	100pF 50V	1	
	C2822	F1H1H101A720	100pF 50V	1	
	C2831	F1H1C223A001	0.022uF 16V	1	
	C2832	F1H1H331A013	330pF 50V	1	
	C2833	F1H1H331A013	330pF 50V	1	
	C2840	F1H1H180A230	18pF 50V	1	
	C2841	F1H1H180A230	18pF 50V	1	
	C2860	F1H1H101A720	100pF 50V	1	
	C2861	F1H1H101A720	100pF 50V	1	
	C2862	F1H1H101A720	100pF 50V	1	
	C2863	F1H1H101A720	100pF 50V	1	
	C2865	F1H1H101A720	100pF 50V	1	
	C2866	F1H1H101A720	100pF 50V	1	
	C2867	F1H1H101A720	100pF 50V	1	
	C2868	F1H1H101A720	100pF 50V	1	
	C2907	F1H1C104A042	0.1uF 16V	1	
	C2908	F1H1C104A042	0.1uF 16V	1	
	C2909	F1H1C104A042	0.1uF 16V	1	
	C2910	F1H1C104A042	0.1uF 16V	1	
	C2911	F1H1H103A219	0.01uF 50V	1	
	C2912	F1H1H103A219	0.01uF 50V	1	
	C2913	F1H1H101A720	100pF 50V	1	
	C2914	F1H1H101A720	100pF 50V	1	
	C2916	F1H1H101A720	100pF 50V	1	
	C2917	F1H1H101A720	100pF 50V	1	
	C2918	F2A0J221A181	220uF 6.3V	1	
	C2919	F2A0J102A130	1000uF 6.3V	1	
	C2920	F2A1C100A180	10uF 16V	1	
	C2922	F2A0J102A130	1000uF 6.3V	1	
	C2923	F2A0J331A183	330uF 6.3V	1	
	C2924	F2A0J331A183	330uF 6.3V	1	
	C2941	F2A1C470A180	47uF 16V	1	
	C2944	F1H1H101A720	100pF 50V	1	
	C2945	F2A1C470A180	47uF 16V	1	
	C2947	F2A0J101A181	100uF 6.3V	1	
	C2948	F2A0J221A181	220uF 6.3V	1	
	C2949	F2A1H3R3A213	3.3uF 50V	1	
	C2982	F2A1C470A180	47uF 16V	1	
	C3000	F1H0J1050013	1uF 6.3V	1	
	C3001	F1H0J1050013	1uF 6.3V	1	
	C3002	F1H0J1050013	1uF 6.3V	1	
	C3003	F1H0J1050013	1uF 6.3V	1	
	C3004	F1H0J1050013	1uF 6.3V	1	
	C3005	F1H1H392A013	3900pF 50V	1	
	C4000	F1H1H103A219	0.01uF 50V	1	
	C4002	F1H1H103A219	0.01uF 50V	1	
	C4003	F1H1H103A219	0.01uF 50V	1	
	C4004	F1H1H103A219	0.01uF 50V	1	
	C4006	F1H1H103A219	0.01uF 50V	1	
	C4007	F2A1E102A207	1000uF 25V	1	
	C4008	EEUFC0J821B	820uF 6.3V	1	
	C4009	F2A0J101A181	100uF 6.3V	1	
	C4010	F2A0J101A181	100uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C4013	F1H1H392A013	3900pF 50V	1	
	C4015	F1H1H103A219	0.01uF 50V	1	
	C4016	F2A1C101A180	100uF 16V	1	
	C4017	F2A1C470A180	47uF 16V	1	
	C4018	F1H1H103A219	0.01uF 50V	1	
	C4019	F1H1H103A219	0.01uF 50V	1	
	C4020	F2A1A330A159	33uF 10V	1	
	C4021	F2A1C470A180	47uF 16V	1	
	C4022	F1H1H103A219	0.01uF 50V	1	
	C4023	F2A1C470A180	47uF 16V	1	
	C4029	F1H1H103A219	0.01uF 50V	1	
	C4030	F2A1E2210045	220uF 25V	1	
	C4032	F1H1H103A219	0.01uF 50V	1	
	C4033	F1H1H103A219	0.01uF 50V	1	
	C4034	F1H1H103A219	0.01uF 50V	1	
	C4035	F1H1H103A219	0.01uF 50V	1	
	C4036	F1H1H103A219	0.01uF 50V	1	
	C4037	F1H1H103A219	0.01uF 50V	1	
	C4039	F2A0J331A183	330uF 6.3V	1	
	C4040	F2A0J101A181	100uF 6.3V	1	
	C4041	F1H1H103A219	0.01uF 50V	1	
	C4042	F2A1V330A379	33uF 35V	1	
	C4043	F2A1C101A155	100uF 16V	1	
	C4044	F0A2A392A010	3900pF 100V	1	
	C4045	F2A1V330A379	33uF 35V	1	
	C4046	F1H1H103A219	0.01uF 50V	1	
	C4047	F2A1C470A180	47uF 16V	1	
	C4102	F1H0J1050013	1uF 6.3V	1	
	C5000	F1H1H102A219	1000pF 50V	1	
	C5001	F1H1H102A219	1000pF 50V	1	
	C5002	F1H1A474A001	0.47uF 10V	1	
	C5003	F1H1A474A001	0.47uF 10V	1	
	C5004	F1H1A474A001	0.47uF 10V	1	
	C5005	F1H1A474A001	0.47uF 10V	1	
	C5006	F1H1H331A013	330pF 50V	1	
	C5007	F1H1H331A013	330pF 50V	1	
	C5008	F1H1H153A219	0.015uF 50V	1	
	C5009	F1H1H153A219	0.015uF 50V	1	
	C5010	F1J2A221A030	220pF 100V	1	
	C5011	F1J2A221A030	220pF 100V	1	
	C5012	F1J2A221A030	220pF 100V	1	
	C5013	F1J2A221A030	220pF 100V	1	
	C5014	ECQV1H684JL3	0.68uF 50V	1	
	C5015	ECQV1H684JL3	0.68uF 50V	1	
	C5016	F1H1H104A013	0.1uF 50V	1	
	C5017	F1H1H104A013	0.1uF 50V	1	
	C5018	F1K2A1040007	0.1uF 100V	1	
	C5019	F1H1H104A013	0.1uF 50V	1	
	C5020	F1H1H104A013	0.1uF 50V	1	
	C5021	F1H1H104A013	0.1uF 50V	1	
	C5022	F1H1H104A013	0.1uF 50V	1	
	C5023	F1K2A1040007	0.1uF 100V	1	
	C5024	F1H1H104A013	0.1uF 50V	1	
	C5025	F1H1H104A013	0.1uF 50V	1	
	C5027	F1H1H104A013	0.1uF 50V	1	
	C5028	F1H1H104A013	0.1uF 50V	1	
	C5030	F1H1H330A230	33pF 50V	1	
	C5031	ECJ1VB1C474K	0.47uF 16V	1	
	C5032	F1H1H102A219	1000pF 50V	1	
	C5033	F1H1H104A013	0.1uF 50V	1	
	C5040	F2A2A2200035	22uF 100V	1	
	C5050	F1H1H102A219	1000pF 50V	1	
	C5051	F1H1H102A219	1000pF 50V	1	
	C5052	F1H1H102A219	1000pF 50V	1	
	C5053	F1H1H102A219	1000pF 50V	1	
	C5100	F1H1H103A219	0.01uF 50V	1	
	C5101	F2A1C101A180	100uF 16V	1	
	C5102	F2A1C470A180	47uF 16V	1	
	C5106	F1H1A474A001	0.47uF 10V	1	
	C5107	F1H1A474A001	0.47uF 10V	1	
	C5117	F1H1H102A219	1000pF 50V	1	
	C5119	F1H1H102A219	1000pF 50V	1	
	C5120	F1H1A474A001	0.47uF 10V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5121	F1H1A474A001	0.47uF 10V	1	
	C5133	F2A0J101A245	100uF 6.3V	1	
	C5150	F1H1H102A219	1000pF 50V	1	
	C5151	F1H1H102A219	1000pF 50V	1	
	C5152	F1H1H102A219	1000pF 50V	1	
	C5153	F1H1H102A219	1000pF 50V	1	
	C5154	F1H1H102A219	1000pF 50V	1	
	C5155	F1H1H102A219	1000pF 50V	1	
	C5200	F1H1H104A013	0.1uF 50V	1	
	C5201	F1H1H153A219	0.015uF 50V	1	
	C5202	ECJ1VB1C474K	0.47uF 16V	1	
	C5203	F1J2A221A030	220pF 100V	1	
	C5204	F1H1H153A219	0.015uF 50V	1	
	C5205	F1J2A221A030	220pF 100V	1	
	C5206	F1H1H104A013	0.1uF 50V	1	
	C5207	F1K2A1040007	0.1uF 100V	1	
	C5208	F1H1H104A013	0.1uF 50V	1	
	C5209	F1H1H104A013	0.1uF 50V	1	
	C5211	F1J2A221A030	220pF 100V	1	
	C5212	F1H1H330A230	33pF 50V	1	
	C5213	F1H1H104A013	0.1uF 50V	1	
	C5214	F1H1H104A013	0.1uF 50V	1	
	C5216	F1H1H331A013	330pF 50V	1	
	C5217	F1H1H104A013	0.1uF 50V	1	
	C5218	F1J2A221A030	220pF 100V	1	
	C5219	F1K2A1040007	0.1uF 100V	1	
	C5220	F1H1H104A013	0.1uF 50V	1	
	C5221	F1H1H102A219	1000pF 50V	1	
	C5222	F1H1A474A001	0.47uF 10V	1	
	C5223	F1H1A474A001	0.47uF 10V	1	
	C5224	F1H1H331A013	330pF 50V	1	
	C5225	ECQV1H684JL3	0.68uF 50V	1	
	C5226	F1H1H104A013	0.1uF 50V	1	
	C5227	F1H1H104A013	0.1uF 50V	1	
	C5228	ECQV1H684JL3	0.68uF 50V	1	
	C5231	F1H1H102A219	1000pF 50V	1	
	C5232	F1H1A474A001	0.47uF 10V	1	
	C5233	F1H1A474A001	0.47uF 10V	1	
	C5234	F1H1H102A219	1000pF 50V	1	
	C5240	F2A2A2200035	22uF 100V	1	
	C5250	F1H1H102A219	1000pF 50V	1	
	C5251	F1H1H102A219	1000pF 50V	1	
	C5300	ECQV1H684JL3	0.68uF 50V	1	
	C5301	F1H1H104A013	0.1uF 50V	1	
	C5302	F1H1H104A013	0.1uF 50V	1	
	C5303	F1H1H104A013	0.1uF 50V	1	
	C5304	F1H1H331A013	330pF 50V	1	
	C5305	F1H1H104A013	0.1uF 50V	1	
	C5306	F1H1H104A013	0.1uF 50V	1	
	C5307	F1J2A221A030	220pF 100V	1	
	C5309	F1H1H104A013	0.1uF 50V	1	
	C5310	F1K2A1040007	0.1uF 100V	1	
	C5311	F1J2A221A030	220pF 100V	1	
	C5312	F1H1H331A013	330pF 50V	1	
	C5313	F1H1H104A013	0.1uF 50V	1	
	C5314	F1H1A474A001	0.47uF 10V	1	
	C5315	F1H1H102A219	1000pF 50V	1	
	C5316	F1H1H104A013	0.1uF 50V	1	
	C5317	F1H1A474A001	0.47uF 10V	1	
	C5318	F1H1H104A013	0.1uF 50V	1	
	C5319	F1K2A1040007	0.1uF 100V	1	
	C5321	ECJ1VB1C474K	0.47uF 16V	1	
	C5322	F1H1H153A219	0.015uF 50V	1	
	C5323	F1H1H330A230	33pF 50V	1	
	C5324	F1H1H153A219	0.015uF 50V	1	
	C5325	F1J2A221A030	220pF 100V	1	
	C5326	F1J2A221A030	220pF 100V	1	
	C5327	F1H1H104A013	0.1uF 50V	1	
	C5328	ECQV1H684JL3	0.68uF 50V	1	
	C5331	F1H1H102A219	1000pF 50V	1	
	C5332	F1H1A474A001	0.47uF 10V	1	
	C5333	F1H1H102A219	1000pF 50V	1	
	C5334	F1H1A474A001	0.47uF 10V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5350	F1H1H102A219	1000pF 50V	1	
	C5351	F1H1H102A219	1000pF 50V	1	
	C5400	ECQV1H684JL3	0.68uF 50V	1	
	C5401	F1H1H104A013	0.1uF 50V	1	
	C5402	F1H1H104A013	0.1uF 50V	1	
	C5403	F1H1H104A013	0.1uF 50V	1	
	C5404	F1H1H331A013	330pF 50V	1	
	C5405	F1H1H104A013	0.1uF 50V	1	
	C5406	F1H1H104A013	0.1uF 50V	1	
	C5407	F1J2A221A030	220pF 100V	1	
	C5409	F1H1H104A013	0.1uF 50V	1	
	C5410	F1K2A1040007	0.1uF 100V	1	
	C5411	F1J2A221A030	220pF 100V	1	
	C5412	F1H1H331A013	330pF 50V	1	
	C5413	F1H1H104A013	0.1uF 50V	1	
	C5416	F1H1H104A013	0.1uF 50V	1	
	C5418	F1H1H104A013	0.1uF 50V	1	
	C5419	F1K2A1040007	0.1uF 100V	1	
	C5421	ECJ1VB1C474K	0.47uF 16V	1	
	C5422	F1H1H153A219	0.015uF 50V	1	
	C5423	F1H1H330A230	33pF 50V	1	
	C5424	F1H1H153A219	0.015uF 50V	1	
	C5425	F1J2A221A030	220pF 100V	1	
	C5426	F1J2A221A030	220pF 100V	1	
	C5427	F1H1H104A013	0.1uF 50V	1	
	C5428	ECQV1H684JL3	0.68uF 50V	1	
	C5431	F1H1H102A219	1000pF 50V	1	
	C5440	F2A2A2200035	22uF 100V	1	
	C5445	F1H1H104A013	0.1uF 50V	1	
	C5450	D0GBR00JA008	0 1/16W	1	
	C5451	F1H1H102A219	1000pF 50V	1	
	C5452	F1H1H102A219	1000pF 50V	1	
	C5453	F1H1H102A219	1000pF 50V	1	
	C5454	F1H1H102A219	1000pF 50V	1	
	C5508	F2A1V4710074	470uF 35V	1	
	C5509	F2A1V4710074	470uF 35V	1	
	C5510	F2A1V4710074	470uF 35V	1	
	C5511	F2A1V4710074	470uF 35V	1	
	C5512	F2A1V4710074	470uF 35V	1	
	C5513	F2A1V4710074	470uF 35V	1	
	C5514	F1H1H104A013	0.1uF 50V	1	
	C5515	F1H1H104A013	0.1uF 50V	1	
	C5516	F2A1V4710074	470uF 35V	1	
	C5517	F2A1V4710074	470uF 35V	1	
	C5518	F1H1H104A013	0.1uF 50V	1	
	C5519	F1H1H104A013	0.1uF 50V	1	
	C5520	F1H1H104A013	0.1uF 50V	1	
	C5521	F1H1H104A013	0.1uF 50V	1	
	C5522	F1H1H104A013	0.1uF 50V	1	
	C5523	F1H1H104A013	0.1uF 50V	1	
	C5524	F1H1H104A013	0.1uF 50V	1	
	C5525	F1H1H104A013	0.1uF 50V	1	
	C5540	F2A2A2200035	22uF 100V	1	
	C5550	F1H1H103A219	0.01uF 50V	1	
	C5551	ECJ1VB1H391K	390pF 50V	1	
	C5552	ECJ1VB1H391K	390pF 50V	1	
	C5553	F1H1H101A230	100pF 50V	1	
	C5554	F1H1H104A013	0.1uF 50V	1	
	C5555	F1K1C1060001	10uF 16V	1	
	C5556	F1H1H103A219	0.01uF 50V	1	
	C5557	F1H1H101A230	100pF 50V	1	
	C5558	F1H1H470A004	47pF 50V	1	
	C5559	F1H1H470A004	47pF 50V	1	
	C5601	F2A1C100A234	10uF 16V	1	
	C5602	F2A1C100A234	10uF 16V	1	
⚠	C5700	F1BAF1020020	1000pF	1	
⚠	C5701	F0CAF334A087	0.33uF	1	
⚠	C5703	F0C2H1040001	0.1uF 500V	1	
⚠	C5704	F1BAF1020020	1000pF	1	
⚠	C5705	F1BAF1020020	1000pF	1	
⚠	C5706	F1BAF1020020	1000pF	1	
⚠	C5707	F1BAF1020020	1000pF	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5711	F2B2G331A084	330uF 400V	1	
	C5712	F2B2G331A084	330uF 400V	1	
	C5713	F0C2J1030005	0.01uF 630V	1	
	C5720	F1H1H104A013	0.1uF 50V	1	
	C5721	ECJ1VB1H221K	220pF 50V	1	
	C5722	F1H1H102A219	1000pF 50V	1	
	C5723	F1H1H471A219	470pF 50V	1	
	C5724	F2A1H5600009	56uF 50V	1	
	C5725	F1H1H104A013	0.1uF 50V	1	
	C5726	F1H1H104A013	0.1uF 50V	1	
	C5728	F1H1H102A219	1000pF 50V	1	
	C5730	ECEA1HKS010B	1uF 50V	1	
	C5737	F1A3A471A035	470pF 1000V	1	
	C5790	F1K2J2220002	2200pF 630V	1	
	C5791	F2A1H2R2A213	2.2uF 50V	1	
	C5794	F1H1H220A004	22pF 50V	1	
	C5795	F1J1H473A022	0.047uF 50V	1	
	C5796	F1J1H104A717	0.1uF 50V	1	
	C5797	F1A3A470A023	47pF 1000V	1	
	C5798	F2A1H5600009	56uF 50V	1	
	C5800	D0GDR00JA017	0 1/10W	1	
	C5805	F2B1V222A007	2200uF 35V	1	
	C5808	F2B1V222A007	2200uF 35V	1	
	C5810	F1H1H104A013	0.1uF 50V	1	
	C5812	F1H1H104A013	0.1uF 50V	1	
	C5813	F2A1V4710035	470uF 35V	1	
	C5815	F1H1H104A013	0.1uF 50V	1	
	C5816	F2A1E471A652	470uF 25V	1	
	C5817	F2A2AR22A358	0.22uF 100V	1	
	C5818	F1H1H104A013	0.1uF 50V	1	
	C5819	F1J2E1030004	0.01uF 250V	1	
	C5820	F1J2E1030004	0.01uF 250V	1	
	C5821	F1J2E1030004	0.01uF 250V	1	
	C5822	F1J2E1030004	0.01uF 250V	1	
	C5823	F1H1H104A013	0.1uF 50V	1	
	C5824	F2A1E471A652	470uF 25V	1	
	C5825	F1H1H104A013	0.1uF 50V	1	
	C5826	D0GDR00JA017	0 1/10W	1	
	C5831	F1H1H104A013	0.1uF 50V	1	
	C5832	F1H1H104A013	0.1uF 50V	1	
	C5869	F1H1H104A013	0.1uF 50V	1	
	C5870	F1H1H104A013	0.1uF 50V	1	
	C5896	F1H1H104A013	0.1uF 50V	1	
	C5897	F1H1H104A013	0.1uF 50V	1	
	C5898	F1H1H104A013	0.1uF 50V	1	
	C5899	F2A1C221A104	220uF 16V	1	
	C6000	F2A1H1R0A213	1.0uF 50V	1	
	C6003	F1H1H182A219	1800pF 50V	1	
	C6005	F2A1H1R0A213	1.0uF 50V	1	
	C6006	F1H1C105A097	1uF 16V	1	
	C6007	D0GB222JA008	2.2K 1/16W	1	
	C6008	F2A1H1R0A213	1.0uF 50V	1	
	C6009	F1H1C105A097	1uF 16V	1	
	C6010	F1J0J106A020	10uF 6.3V	1	
	C6011	F1H1C105A097	1uF 16V	1	
	C6012	F2A1H1R0A213	1.0uF 50V	1	
	C6013	F1H1H101A720	100pF 50V	1	
	C6017	F1H0J1050013	1uF 6.3V	1	
	C6106	F1H1C105A097	1uF 16V	1	
	C6300	F1H1H102A219	1000pF 50V	1	
	C6503	F1H1H102A219	1000pF 50V	1	
	C6512	F1H1H102A219	1000pF 50V	1	
	C6601	F1H1H101A720	100pF 50V	1	
	C6608	F1H1H104A013	0.1uF 50V	1	
	C6609	F1H1H104A013	0.1uF 50V	1	
	C6611	F1H1H331A013	330pF 50V	1	
	C6612	F1H1H331A013	330pF 50V	1	
	C6613	F1H1H331A013	330pF 50V	1	
	C6614	F1H1H103A219	0.01uF 50V	1	
	C6616	F2A1V220A184	22uF 35V	1	
	C6633	F1H1H101A720	100pF 50V	1	
	C6634	F1H1H101A720	100pF 50V	1	
	C6671	F2A1V220A184	22uF 35V	1	
	C6801	F1H1C683A087	0.068uF 16V	1	
	C6802	F1H1C683A087	0.068uF 16V	1	
	C6803	F1H1C104A042	0.1uF 16V	1	
	C6804	F1H1C104A042	0.1uF 16V	1	
	C6810	ECJ1VB1H391K	390pF 50V	1	
	C6811	F1H0J1050013	1uF 6.3V	1	
	C6812	F1H0J1050013	1uF 6.3V	1	
	C6813	F1H1H331A013	330pF 50V	1	
	C6814	F1H1H331A013	330pF 50V	1	
	C6815	F1H1H103A219	0.01uF 50V	1	
	C6816	F1H1H103A219	0.01uF 50V	1	
	C6820	ECJ1VB1H391K	390pF 50V	1	
	C6821	F1H1H103A219	0.01uF 50V	1	
	C6822	F1H1H103A219	0.01uF 50V	1	
	C6851	F1H1C104A042	0.1uF 16V	1	
	C6852	F1H1H102A219	1000pF 50V	1	
	C6861	F1H1H102A219	1000pF 50V	1	
	C6863	F1H1C104A042	0.1uF 16V	1	
	C6865	F1H1H103A219	0.01uF 50V	1	
	C6918	F1H1C683A087	0.068uF 16V	1	
	C6919	F1H1H152A219	1500pF 50V	1	
	C6920	F1H1H472A219	4700pF 50V	1	
	C6921	F1H1C104A042	0.1uF 16V	1	
	C6922	F1H1H103A219	0.01uF 50V	1	
	C6923	F1H1H561A013	560pF 50V	1	
	C6924	F1H1C683A087	0.068uF 16V	1	
	C6925	F1H1C224A068	0.22uF 16V	1	
	C6926	F1H1C224A068	0.22uF 16V	1	
	C6927	F1H1H102A219	1000pF 50V	1	
	C6928	F1H0J1050013	1uF 6.3V	1	
	C6931	F2A1A330A159	33uF 10V	1	
	C6932	F2A1A330A159	33uF 10V	1	
	C6933	F1H0J1050013	1uF 6.3V	1	
	C6934	F1H0J1050013	1uF 6.3V	1	
	C6935	F1H0J1050013	1uF 6.3V	1	
	C6937	F1H1C223A001	0.022uF 16V	1	
	C6938	F1H1C104A042	0.1uF 16V	1	
	C6939	F1H1C104A042	0.1uF 16V	1	
	C6940	F1H1C104A042	0.1uF 16V	1	
	C7100	F2A1H3R3A213	3.3uF 50V	1	
	C7103	F2A1H3R3A213	3.3uF 50V	1	
	C7200	F2A1H3R3A213	3.3uF 50V	1	
	C7203	F2A1H3R3A213	3.3uF 50V	1	
	C7401	F1H1H103A219	0.01uF 50V	1	
	C7402	F1H1H223A219	0.022uF 50V	1	
	C7403	F1H1H223A219	0.022uF 50V	1	
	C7405	F1H1H103A219	0.01uF 50V	1	
	C7406	F1H1H103A219	0.01uF 50V	1	
	C8001	EEE0GA331WP	330uF 4V	1	
	C8003	F1G1C104A083	0.1uF 16V	1	
	C8004	F1G1C104A083	0.1uF 16V	1	
	C8004	F1H1H103A219	0.01uF 50V	1	
	C8005	F1G1C104A083	0.1uF 16V	1	
	C8005	F1H1H103A219	0.01uF 50V	1	
	C8006	F1G1C104A083	0.1uF 16V	1	
	C8007	F1G1C104A083	0.1uF 16V	1	
	C8011	F2G0J101A031	100uF 6.3V	1	
	C8012	F1G1C104A083	0.1uF 16V	1	
	C8013	F1G1C104A083	0.1uF 16V	1	
	C8014	F1G1C104A083	0.1uF 16V	1	
	C8015	F1G1C104A083	0.1uF 16V	1	
	C8015	F1H1H101A720	100pF 50V	1	
	C8016	F1G1C104A083	0.1uF 16V	1	
	C8017	F1H1H101A720	100pF 50V	1	
	C8018	F1G1C104A083	0.1uF 16V	1	
	C8020	F1G1C104A083	0.1uF 16V	1	
	C8021	F1G1C104A083	0.1uF 16V	1	
	C8022	F1G1C104A083	0.1uF 16V	1	
	C8023	F1G1C104A083	0.1uF 16V	1	
	C8024	F1G1C104A083	0.1uF 16V	1	
	C8026	F1G1C104A083	0.1uF 16V	1	
	C8031	F2A1H3R3A213	3.3uF 50V	1	
	C8051	F1H0J1050013	1uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8052	F1G1A1040006	0.1uF 10V	1	
	C8053	F1G1C104A083	0.1uF 16V	1	
	C8054	F1G1H221A444	220pF 50V	1	
	C8055	F1H0J1050013	1uF 6.3V	1	
	C8056	F1G1E2220001	2200pF 25V	1	
	C8057	F1H0J1050013	1uF 6.3V	1	
	C8111	F1J1A106A043	10uF 10V	1	
	C8112	F1H0J1050013	1uF 6.3V	1	
	C8113	F1G1C153A039	0.015uF 16V	1	
	C8151	F1H0J4750005	4.7uF 6.3V	1	
	C8201	F2G0J101A031	100uF 6.3V	1	
	C8202	F1G1A1040006	0.1uF 10V	1	
	C8211	F1G1E1220001	1200pF 25V	1	
	C8221	F1G1E1020001	1000pF 25V	1	
	C8222	F1G1E8210002	820pF 25V	1	
	C8225	F1G1E1020001	1000pF 25V	1	
	C8226	F1G1E1020001	1000pF 25V	1	
	C8231	F1G1A1040006	0.1uF 10V	1	
	C8232	F1G1A1040006	0.1uF 10V	1	
	C8251	F2G0J221A031	220uF 6.3V	1	
	C8252	F1G1C104A083	0.1uF 16V	1	
	C8255	F2G1C220A037	22uF 16V	1	
	C8256	F1G1C104A083	0.1uF 16V	1	
	C8257	F2G1C470A076	47uF 16V	1	
	C8258	F1G1C104A083	0.1uF 16V	1	
	C8261	F1G1C104A083	0.1uF 16V	1	
	C8262	F1G1C104A083	0.1uF 16V	1	
	C8263	F2G0J1020022	1000uF 6.3V	1	
	C8301	F2G0J221A031	220uF 6.3V	1	
	C8302	F2G0J330A031	33uF 6.3V	1	
	C8303	F1G1A1040006	0.1uF 10V	1	
	C8304	F1G1A1040006	0.1uF 10V	1	
	C8305	F1G1A1040006	0.1uF 10V	1	
	C8306	F1G1E4720002	4700pF 25V	1	
	C8311	F1G1A1040006	0.1uF 10V	1	
	C8312	F1H0J1050013	1uF 6.3V	1	
	C8313	F1H0J1050013	1uF 6.3V	1	
	C8320	F1G1E4720002	4700pF 25V	1	
	C8321	F1G1A1040006	0.1uF 10V	1	
	C8325	F1G1A1040006	0.1uF 10V	1	
	C8330	F2G0J470A031	47uF 6.3V	1	
	C8331	F1G1A1040006	0.1uF 10V	1	
	C8335	F1G1A1040006	0.1uF 10V	1	
	C8341	F1G1A1040006	0.1uF 10V	1	
	C8401	F1G1H150A565	15pF 50V	1	
	C8421	F2G0J221A031	220uF 6.3V	1	
	C8422	F1G1C104A083	0.1uF 16V	1	
	C8423	F2G0J330A031	33uF 6.3V	1	
	C8424	F1G1C104A083	0.1uF 16V	1	
	C8425	F1G1H150A565	15pF 50V	1	
	C8426	F1G1C104A083	0.1uF 16V	1	
	C8428	F1G1C104A083	0.1uF 16V	1	
	C8429	F1G1C104A083	0.1uF 16V	1	
	C8431	F2G1C100A072	10uF 16V	1	
	C8432	F1J1A106A043	10uF 10V	1	
	C8433	F1J1A106A043	10uF 10V	1	
	C8434	F1H1C104A042	0.1uF 16V	1	
	C8501	F2G0J101A031	100uF 6.3V	1	
	C8502	F1G1C104A083	0.1uF 16V	1	
	C8503	F1G1C104A083	0.1uF 16V	1	
	C8504	F1G1C104A083	0.1uF 16V	1	
	C8505	F1G1C104A083	0.1uF 16V	1	
	C8506	F1G1C104A083	0.1uF 16V	1	
	C8511	F1H0J1050013	1uF 6.3V	1	
	C8512	F1H0J1050013	1uF 6.3V	1	
	C8513	F1G1A1040006	0.1uF 10V	1	
	C8514	F1G1A1040006	0.1uF 10V	1	
	C8515	F1G1A1040006	0.1uF 10V	1	
	C8516	F1G1A1040006	0.1uF 10V	1	
	C8521	F1G1A1040006	0.1uF 10V	1	
	C8522	F1G1A1040006	0.1uF 10V	1	
	C8523	F1G1C104A083	0.1uF 16V	1	
	C8524	F1G1C104A083	0.1uF 16V	1	
	C8525	F1G1C562A039	5600pF 16V	1	
	C8526	F1G1C183A039	0.018uF 16V	1	
	C8527	F1G1A333A013	0.033uF 10V	1	
	C8528	F1H0J1050013	1uF 6.3V	1	
	C8529	F1H0J1050013	1uF 6.3V	1	
	C8530	F1G1C104A083	0.1uF 16V	1	
	C8531	F1G1H101A566	100pF 50V	1	
	C8532	F1G1H221A444	220pF 50V	1	
	C8533	F1G1C104A083	0.1uF 16V	1	
	C8541	F1G1E4720002	4700pF 25V	1	
	C8550	F2G0J330A031	33uF 6.3V	1	
	C8551	F1G1C104A083	0.1uF 16V	1	
	C8552	F2G1C100A072	10uF 16V	1	
	C8553	F2G0J470A031	47uF 6.3V	1	
	C8554	F1H0J1050013	1uF 6.3V	1	
	C8561	F1G1C104A083	0.1uF 16V	1	
	C8562	F2G1C100A072	10uF 16V	1	
	C8563	F2G0J470A031	47uF 6.3V	1	
	C8564	F1H0J1050013	1uF 6.3V	1	
	C8571	F1J1A106A043	10uF 10V	1	
	C8572	F1G1C104A083	0.1uF 16V	1	
	C8601	F1G1C104A083	0.1uF 16V	1	
	C8602	F1G1C153A039	0.015uF 16V	1	
	C8606	F1G1C104A083	0.1uF 16V	1	
	C8611	F1G1C104A083	0.1uF 16V	1	
	C8621	F1G1H100A565	10pF 50V	1	
	C8622	F1G1H100A565	10pF 50V	1	
	C8651	F1G1C104A083	0.1uF 16V	1	
	C8652	F1G1C104A083	0.1uF 16V	1	
	C8691	F1G1C104A083	0.1uF 16V	1	
	C8695	F1G1C104A083	0.1uF 16V	1	
	C9002	F1G1C104A083	0.1uF 16V	1	
	C9003	F1G1C104A083	0.1uF 16V	1	
	C9004	F1G1H100A565	10pF 50V	1	
	C9005	F1G1H120A565	12pF 50V	1	
	C9006	F1G1A1040006	0.1uF 10V	1	
	C9007	F1G1C104A083	0.1uF 16V	1	
	C9008	F1G1H221A444	220pF 50V	1	
	C9009	F1G1H100A565	10pF 50V	1	
	FL8101	F1H0J1050018	1uF 6.3V	1	
	FL8102	F1H0J1050018	1uF 6.3V	1	
	FL8103	F1H0J1050018	1uF 6.3V	1	
	FL8104	F1J1E1040022	0.1uF 25V	1	
	FL8421	F1H0J1050018	1uF 6.3V	1	